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WORK FOR THE MONTH.

AUGUST.

As it is the duty of every agriculturist to carry his thoughts beyond the present, in order that he may be prepared for the future, we shall commence our month's work by calling the attention of our friends and readers to the

PREPARATION OF FIELDS FOR WHEAT.

Though it will be some months before the wheat crop should be seeded, we feel assured that great advantages would result, if the grounds intended for wheat, were ploughed up earlier than usual and receive two or three harrowings, say, at intervals of a fortnight apart, prior to sowing the seed. The effect of these processes would be, in part, the following:—1. By these repeated exposures of the soil to the atmosphere, many of the mineral substances would be liberated and placed in a condition to be availed of by the wheat plants—actions, re-actions, and combinations, would take place, through atmospheric agencies, highly salutary to the future growth and production of the crop. 2. By harrowing at the intervals named, whatever grass or weeds that may spring up in the interim, will be destroyed, and the soil cleansed and relieved of those pests that so often infest wheat and other grain fields, rob the plants of their food while growing, and add to the labor of cleaning the grain in the preparation of it for market. We have ever been convinced, and so have endeavored to teach, that the success of the growth of a crop depends as much upon the manner in which the soil may be prepared, as upon any other cause; and we hope that the labor and expense of harrowing will not deter our friends from making the experiment on at least a portion of their wheat grounds the approaching season.

As the wheat crop is the money-crop of a vast majority of farmers, its importance is of immense value, not only to them in a pecuniary point of view, but to the well-being of the country at large, and hence, none should neglect, or grudgingly bestow, any moderate degree of extra labor, when that labor is calculated to increase the yield of the crop. That it would have that effect we have no doubt.

The average product of wheat in this State has been increased within the last quarter of a century, from about 7 bushels to the acre, to above 13 bushels per acre,—an increase of nearly 100 per cent., and we think that we risk nothing in saying, that by proper care in the preparation and fertilization of the soil, it could be advanced 100 per cent. more; for

we have known 52 bushels and a peck of wheat to be produced on each of 2 acres.

PLoughing for Wheat.

If the land to be cultivated in wheat be a *clover-ley* or *grass-sward*, and the ground not wet, we would plough at least 8 inches in depth, turn the furrows flat; roll the ground with a heavy roller to close up and compress the furrow-slices; then harrow furrow-wise, and cross harrow until the soil was thoroughly pulverized.

Without question clover is the best preparatory crop. A crop of peas ploughed in is also excellent, but clover being the cheapest is considered by many judicious wheat-growers preferable; that it is well adapted to the purpose will be shown by the following table of analyses of the ashes of wheat and of clover:—

TABLE OF ANALYSES.

	WHEAT.	CLOVER.
Potash,	.06	11.30
Soda,	.08	
Lime,	6.08	35.76
Magnesia,	0.09	10.53
Silica,	81.06	2.66
Alumina,		
Oxide of Iron, }	2.06	0.95
“ Magnesia, }		10.53
Phosphoric Acid,	4.08	4.46
Sulphuric Acid,	1.00	6.88
Chlorine,	0.09	
Carbonic Acid,		20.94
Chloride of Sodium,		0.58
“ Potassium,		5.92

If wheat be seeded in corn ground—an inferior system of culture, which nothing but necessity will justify, the seed should be ploughed in with a seed plough or cultivator. Let whichever of these implements be used the seed must be put in with great caution, and care must be taken not to bury the seed more than two inches, or three at furthest.

OF MANURE AND MANURING.

Whether we sowed upon a *clover-ley* or *grass-sward* we would give either a dressing of manure, combining both organic and inorganic constituents, to perform the double purpose of promoting the decomposition of the vegetable matter turned under, and of supplying food to the plants. We hold it to be an agricultural truth that no plant can be made to bear its fruit in fulness and perfection, unless it be provided with appropriate food to enable it to perform its functions healthfully and vigorously. The half starved plant may struggle on in a sickly state, striving its best to overcome the surrounding difficulties incident to the meagre fare; but all its noble efforts must, from the very nature of things,

result in diminished product, as it is inconsistent with the laws of vegetable life, that perfect growth and fructification can be the offspring of any plant, whose whole existence has been through a denial of all those elements which are essential to preserve its vitality in vigorous health.

Quantities of Manure.—Those who possess the facilities and the means of procuring guano, will consult their interests by manuring with 200 lbs. of Peruvian Guano and 1 bushel of plaster thoroughly mixed together per acre. On clover-leys, or grass-swards, 100 lbs. of Peruvian Guano and 100 of phosphatic guano, mixed with 1 bushel of plaster will answer: to be ploughed in.

10 two-horse cart loads of well-rotted stable or barn-yard manure, mixed with 2 bushels of salt and 5 bushels of ashes will produce an acre of good wheat:—to be ploughed in.

4 bushels of bone-dust dissolved with dilute sulphuric acid, mixed with 100 lbs. of Peruvian guano, and 10 bushels of leached ashes, will produce a good acre of wheat.

10 two-horse cart loads of marsh-mud and 100 lbs. of Peruvian guano, well mixed together will produce an acre of good wheat:—to be ploughed in.

10 two-horse cart loads of marsh-mud, or woodsmould, mixed with 5 two-horse cart loads of well-rotted dung, will bring an acre of good wheat:—to be ploughed in.

Preparation of the Seed.—Make a brine of common salt, sufficiently strong to float an egg: put your seed wheat into it, stir it about and skim off all the light floating grains of wheat and weed seed.—Let the grain remain in soak 12 or 24 hours. Drain off the brine, spread the soaked seed on a barn floor, and mix freshly *slaked* lime with the seed; stir the seed until every grain of wheat is coated over with the lime.

No more seed should be taken to the field in any one day than can be put in. Seed in the soak will keep many days, but does not do to be exposed long to the sun and air after being taken out before it is covered in the earth. It is a good custom to cover it in the cart with a cloth while being used.

Before putting the seed wheat to soak, in the salt brine, wash it twice in pure water.

There are many other soaks recommended, but we believe this to be the best, and know it to be a sure prevention against smut, if the brine is made of proper strength, and the lime be fresh slaked.

Selection of Seed Wheat.—Be sure to select such kind of seed wheat as is adapted to your soil; let it be hardy, early and prolific. Be sure that there is no cockle, chess or other weed seed among it. It is a good custom to pass even the cleanest seed wheat through a good sieve before soaking it.

Depth of Covering.—Two inches is about the best depth to cover the seed.

Modes of Seeding Wheat.—There are two modes of seeding wheat—by the broadcast, and by drilling. If put in broadcast, the seed must be cast by a careful, skilful and experienced hand, who can apportion the proper quantity of seed to the acre.

Quantity of Seed per acre, sown Broadcast.—Wheat growers differ as to the quantity of seed per acre; some allot 6 pecks to the acre, while others prefer 8 pecks per acre. We prefer the latter quantity, with the view of allowing something for the depredations of birds, and to provide against winter and early spring killing. When sown broadcast, the seed must be harrowed and cross-harrowed in, so as to cover the seed to the depth of 2 inches, and the ground then rolled.

Drilling the Wheat in by a Machine.—We prefer this mode of putting wheat in, for the following reasons:—

1. It requires three-eighths less seed to set an acre of land in wheat by the drill, than when broadcasted. 5 pecks of seed per acre by the drill is sufficient; whereas, by broadcast, when well done, 8 pecks of seed is necessary—a saving of seed in a hundred acre field, of 75 bushels.

2. The seed are more equally and eligibly distributed, as regards space and depth, than can possibly be done by hand, however skilfully performed.

3. By drilling, the labor of forming the drill, dropping the seed, covering, and rolling is performed at one and the same time, thus saving much time and labor, while the work is done better. Some of the drilling machines have an attachment for depositing the guano, in which case, a considerable saving of guano is effected—at least 25 per cent.

4. By drilling, the machine raises a slight ridge on each side of the drill, which, to its extent, protects the roots of the plants from the injurious effects of cold and wet, the slight elevation acting as a barrier against wind, water and cold.

5. Should the roots of the plants be uprooted by the contraction and expansion of the alternations of cold and heat in winter and early spring, the earth forming the ridges settle down in the ridges and cover the roots, thereby affording a tolerably fair protection to them, rendering it an easy matter in spring when the frost is out of the ground, and the earth settled and dry enough, to replace the roots, by passing a roller over the fields—an operation of infinite service, and which should never be omitted.

6. Wheat planted in drills admits a freer circulation of sun and air, than when broadcasted, consequently the grain ripens several days earlier. The space between the drills opens a direct channel for the reception and absorption of the dews, so universally acknowledged to be at once a rich source of fertilization, and promotive of the growth of plants.

7. The drilling in of wheat is said by one of the best, most enlightened, and successful wheat growers in the country, to render wheat less liable to *rust*, than when sown broadcast. He does not assign the reason; but we presume the theory of the thing to be this:—that owing to the free circulation of sun and air between the drills or rows of wheat, the plants do not suffer so much from superabundance of water, as do those sown broadcast, and, as a consequence, vegetation grows on more regularly; the plants, therefore, are not so liable to be forced into an imbibition of an excess of sap, and by this means escape the evils which would flow from an exuberance of that fluid; the vessels of the stalks avoid disruption, no exudation takes place; so that, should the close, musky weather, which so favors the parasitic or fungus plants, to which the rust is referred, occur, the stalks of the wheat plants remaining whole, and there being no weeping out of the sap, no lodgments can be made of the parasitic tribe; and hence, they are wafted away by the wind as it passes through the spaces of the drills. For the efficacy of this we do not hold ourselves responsible, but merely give it as a theory.

Time of Seeding.—This is a question which involves others with it, as location and kind of wheat. We have ever been, and continue to be the advocate of early sowing, and notwithstanding the oft-repeated attacks of the Hessian fly, to which early sown wheat plants are peculiarly subject, we remain unshaken in our belief of the propriety of the

practice. It is not our purpose to designate any particular day as the one on which wheat should be seeded; but will merely urge as our opinion that it should be put in as soon after the 20th of September as may be practicable, regard being had to the variety of the wheat and location, and that favoring circumstances concurring, all should make their arrangements so as to have the seeding of their wheat completed by the 10th of October, or at all events by the 15th of that month.

Water-Furrows.—When your wheat is seeded, make your water-furrows; be particular so to make them as they will carry off all the water that falls: have them examined and cleaned out through winter and early spring. When your water-furrows are made, pass the roller cross-wise over them.

CLEANSING OF GRANARIES.

Before having your present crop of wheat stored away, have your granaries thoroughly cleansed. Mr. Caillat, in the *Comptes Rendus*, recommends the use of tar as a certain and economical agent for the destruction of the weevil. He says, "the efficacy of tar in driving away the weevil and preserving the grain is an incontestable fact. My father had, a long time ago, his granaries, barns, and the whole house, infested with these insects, so much so that they penetrated in all the chests, and among the linen. He placed an open cask impregnated with tar in the barn, and then in the granaries; at the end of some hours the weevils were seen climbing along the walls by myriads, and flying in all directions away from the cask. On moving this tarred vessel from place to place, the premises were in a few days completely cleared of these troublesome and pernicious guests. The agriculturist who wants to get rid of weevils, may, as soon as he perceives their presence, impregnate the surface of some old planks with tar, and place them as required in his granaries. Care must be taken to renew the tar from time to time in the course of the year, to prevent the return of the insects."

CULTIVATION OF RYE.

Preparation of the Ground.—Give the land you intend to seed to rye, a moderate dressing of manure, about half as much as you would to your wheat crop; plough the ground deeply, thoroughly pulverize it by harrowing and then roll, when it will be fit for being seeded.

Quantities of Seed per acre.—Sow 5 pecks to the acre.

Mode of Sowing and Covering.—Sow broadcast, and cover with the harrow about 2 inches deep; first harrow furrow-wise, then cross-wise, then make your water-furrows, and roll across them.

Preparation of the Seed.—Soak them in a strong solution of salt, as recommended for wheat.

Time of Sowing.—Seed your Rye from the 10th to the 20th of this month.

SETTING TIMOTHY MEADOWS.

If you design setting a timothy meadow we wish to assure you of this truth:—It is a waste of time, labor and money, to attempt to grow it on any but a fertile soil, without heavy manuring. This, your own good sense will tell you is the only rational view of the subject. A meadow set in timothy is destined to remain in that grass for, say, five years at least. It is said to be a seven years grass, but as meadows are treated in our country they never last that long. If, however, they were, every second year, top-dressed and harrowed, they would not only last during the longest period named, but con-

tinued to afford profitable crops of grass. But, if unaided by such biennial treatment, as all its annual products are carried off, and each abstracts from the earth large portions of its organic and inorganic constituents, the soil becomes deteriorated, unable to sustain a heavy growth of vegetation, and, as a consequence, the great body of the plants, for want of food, die out.

As to the Soil.—A moist clay loam is best adapted to the culture of timothy; though it will grow on any fertile loamy soil wherein there are lime and potash. On porous gravelly, or sandy soils, the plant does not thrive well. On a stiff, dry red clay we have had it to grow well and produce luxuriant crops, but we took especial pains in manuring and preparing the soil for the reception of the seed, and in top-dressing it afterwards.

Preparation of the Soil.—The land intended for a timothy meadow unless it be naturally very fertile, should be generously manured, ploughed deep and thoroughly pulverized by rolling and harrowing, and again rolling.

Quantities of Seed per acre.—Less than 1 peck per acre should never be sown: and were we setting a timothy meadow, we would sow 1½ peck to the acre.

Seeding.—The seed must be equally distributed by a careful hand, or by a machine. We prefer the latter mode. As the seed is sown, harrow them in with a light garden or seed harrow, and then roll.

Time of Seeding.—from the 20th August till the 10th of September.

TURNIPS.

If you have not already sown your turnips, get them in by the 10th of this month.

LATE POTATOES.

Keep these clean, and at the last working top-dress them with a mixture per acre comprised of 1 bushel of salt, 1 bushel of plaster and 5 bushels of spent ashes.

FENCES.

Carefully examine all your fences and have all the necessary repairs made.

POULTRY HOUSES.

Have these cleansed, and preserve the manure. Recollect that the droppings of a single hen a year contain all the elements of 20 bushels of wheat.

THRASHING OUT GRAIN.

As soon as you can address yourself to the duty, have your wheat thrashed out, cleaned, and ready for market. Keep your eyes steadily upon the market, and avail yourself of the first good opportunity, when the price is highly remunerative, to sell your crop. See to it that the grain dealers do not get to the windward of you, and pocket the fruits of your labor.

SHEEP.

Be particular and see that your sheep are well supplied with tar and salt this month, as we advised last month.

MILCH COWS AND TWO-YEAR OLD HEIFERS.

If you have not already a full bred bull, buy one, if convenient; if not, hire the services of a full bred Durham, Alderney, Ayrshire or Devon Bull, and put your cows and two-year old heifers to him, in order that their progenies may be improved, and that your calves may come in May next, when there will be pastures for their dams: and be sure to feed the latter well through the ensuing winter and following spring.

LATE CORN.

See to it that your late corn is laid by as clear as a penny.

MATERIALS FOR MAKING MANURE.

During the next three months employ a hand and team, in collecting and forming compost heaps.

BUSHES, SPROUTS, BRIARS, WEEDS.

As this is presumed to be the best month in the year to destroy these pests, then set a hand to work and exterminate them.

DRAINING.

Drain your wet lands and thus prepare them for deeper and more profitable tillage. The health of your families, as well as the yield of your crops will be vastly improved by the operation.

MOULD.

We desire to impress this truth upon your mind. Mould is an essential constituent of every fertile soil.

WORK IN THE GARDEN.

AUGUST.

Spinach—During the first and second weeks in this month, prepare a bed and drill in some rows of spinach for use in September and October.

Radishes—in the first week or ten days of this month sow scarlet and short-top radish seed. Towards the last of the month sow white and black Spanish radish seed.

Asparagus beds—These should be cleaned from weeds and kept clean.

Turnips—Put in a bed of turnips the first week in this month.

Celery—Set out your celery plants intended for a late crop.

Small Salladings—Sow seeds of small salladings of all kinds at intervals throughout the month.

Green Peas—Select a shady spot and plant a few rows of green peas.

Kidney Beans—These may be planted at any time up to the 15th of the month. If the weather should prove dry, have them watered freely every other evening until rain occurs.

Lettuce—Set out your plants for heading and sow seed for a successive crop. In dry weather have the watering pot used freely.

Endives—Tie up your forward crop; set out your plants, and sow seed for a late crop.

Melons, Cucumbers—Keep the beds on which these are growing clean.

Herbs—Such herbs as are in flower should be cut and dried in the shade.

Lima, and Carolina Beans—have these hoed, and if the weather be dry, have them freely watered.

Cabbages, of all kinds must be kept clean of weeds, and watered in times of drought. Any plants in your seed beds of sufficient size should be transplanted. In dry weather water freely.

Weeds—Let none of these go to seed in your garden; pull them up, and when dry enough burn them.

Budding—Cherries, Plums and other trees may be budded this month, provided the bark parts freely from the stock.

Inoculating—In the early part of this month pears may be inoculated. Apples, Peaches, Nectarines and Apricots may be inoculated any time during the month and up to the 15th of next month.

Potatoes—Have these kept clean, and give them

a top dressing of the mixture recommended in the Farm work.

Watering generally—In all times of drought be sure to have every compartment of your garden well watered every other evening.

ARE LIGHTNING RODS A PROTECTION AGAINST LIGHTNING?

To the Editors of the American Farmer:

I will comply with your request by saying that since the organization of the Montgomery County Mutual Insurance Company, the above question has often been asked by farmers who contemplated insuring their buildings; and my reply has invariably been, if the rods were of good size, and carefully connected, and properly attached to the building, all my experience and observation for more than thirty years, tended to prove that they were a great protection; and so well satisfied of this was a majority of our Board, that a deduction of about one-sixth of the rate of insurance is made on barns thus provided. The wisdom of the measure is sanctioned by nine years experience in our company, and by a much more extended experience in some other companies.

For the benefit of my brother farmers, as well those who do not, as those who do insure their buildings, I propose briefly to refer to some statistics on the subject, and which are considered altogether reliable as to general results. There are *theorists* who doubt the protection, unless the rods are of such dimensions as to render their general use quite impracticable; and there are doubtless those, who in *practice*, err on the other extreme, making their rods of wire, and too small to carry off the mass of electricity in an ordinary stroke of lightning.

How large exactly the rod should be to afford perfect security, I am unable to say; nor have I met with a practical individual who could, or would say, from positive experience. My own opinion is, that it is best to incur little more expense of material—when doing what is usually expected to last a life time—and to have the rod not less than $\frac{1}{4}$ to $\frac{3}{4}$ of an inch in diameter; and it is believed that a wrought iron cylinder rod, from one to one and a half inches diameter, such as are made and readily obtained for water pipes would be still preferable: having vastly more protecting or conducting surface, less liable to bend, the connecting screws already cut for the joints, and at less cost by nearly one-half than is usually charged by the itinerant pedlars who make a business of it for profit, with their small wire or split iron of a quarter inch, or at most three-eighths diameter, and the connection formed by hooks at the end, thrice too large. A much safer connection is made by screws on the rods at the joints, with a screw cap to fit over both ends: this forms a perfect connection at every joint, and is much more readily put up and taken down, if necessary, for repairs.

The attachment to the building is also an important matter. Glass as an insulator, inserted within an iron ring and staple, and driven into the building, is very common, but is believed to be quite defective on several accounts; the distance insulated is too small to be of any practical advantage, they are very liable to break from the vibration of the rod in a high wind, [I have seen the small rods above referred to, bent by the force of the wind, to nearly or quite a horizontal posi-

tion,] and when the glass is wet, as it usually is in such storms, it forms a conductor—or certainly is not a good non-conductor—from the rod to the iron staple driven into the building, and when the glasses are broken, the rod usually remains without an insulator of any kind. If an iron staple is used, leather is preferable to glass as an insulator; take a strip of sole or harness leather four inches broad, and long enough to encase the rod within the ring and lap over $1\frac{1}{2}$ inches after filling the space; at two diagonal corners, leave a projection of leather $\frac{1}{2}$ to $\frac{3}{4}$ of an inch in length, and about $\frac{1}{2}$ the width; when in position these corners will spread out, one below and the other above the ring, and effectually keep it in place.

But I should prefer as insulators, and for attaching the rod, durable seasoned wood to any other attachment whatever, spiked to, or morticed into the building, the rod passing through it 12 to 15 inches distant. I would also prefer the point or points to be of sufficient elevation above the roof, and in number, to allow for horizontal attraction, of not more than twice, or at most three times their elevation above the comb; to be tipped with some durable metal, (platina is preferable,) not liable to oxydation, and to be inserted into the earth deep enough to come into contact with moisture in the driest time—say 5 to 6 feet, and in an angle from the building. These remarks and directions are intended for those not familiar with the subject.

Even defective as many lightning rods confessedly are, they doubtless afford much protection against this all-powerful and destructive agent.

Our insurance company has been in operation nine years; has about four millions of risks, and probably five hundred barns insured, a large proportion have lightning rods; and of the whole number destroyed by lightning, not one was thus protected; nor has a single building insured or uninsured, so far as has come to my knowledge, and protected with rods, been destroyed by lightning. One or two have been struck, but not fired or materially injured, as the electricity passed off by the rods and metal spouts, with slight damage.

A case of this kind has very recently come under my notice of a large barn, having two well arranged but small rods, placed each about one-third the length from the ends of the building. Near the comb and just above the bend of one rod at the roof, one of the cast-iron screw caps was fused or burst off—there being most likely a space between the ends of the rods within the cap—and a few slate and glass insulator there broken. The fluid apparently followed the rod to the spout where a few more slate were broken, and the end of a rafter splintered and slightly charred. It there divided, flying off in a tangent, leaving the rods entirely and following a larger and better conductor—the metal spout—to the ground at each end of the building, and melting the solder at the joints. Under one spout was a barrel of water, which was shivered to pieces; at the other end of the building there was no connection with the spout and earth. Standing in an adjacent stall was a man and a mule, both were prostrated, but not injured materially; but the effect on the building was very marked: several of the corner stones and a door frame were loosened, and a large stone near the ground, probably weighing from two to three hundred pounds was thrown quite out of position; indeed the whole corner of

the building appeared to have been raised up perpendicularly.

From these facts, for I carefully inspected the premises both before and subsequent to the stroke of lightning, it would seem to indicate the great importance of larger rods, and a perfect connection at the joints; and the absolute necessity of a direct contact with the earth. Although neither rod was in contact with the spout by several inches, yet the fluid took the spout as the greater metallic surface, and in the charge the concussion broke the slate and splintered the rafter. This is my theory, but every reader can form his own.

It was my intention to cite several other cases within my knowledge, all going to establish this theory of larger rods, if such it be; but my letter is already exceeding the space offered by you; and I will only add one other case, and give the long experience of two other companies, which has been kindly furnished at my request.

The Lycoming County, Pa. Mutual Insurance Company has been in operation *seventeen years*; and has issued within that time *fifty-one thousand three hundred and thirty-three policies*. The risks amounting probably from twenty to twenty-five millions of dollars, though I am not advised of the exact amount of risks at this time, nor of the exact number of barns insured, but believed to be not less than five thousand in number; *not one protected by lightning rods, was destroyed by lightning during the whole period!*

The Worcester County, Mass. Mutual Insurance Company has been in operation *thirty-four years*. From its late annual statement, and also from information derived from its President, it appears that the risks, confined to a single county, amount to *about fourteen and a half millions of dollars*.—“About one-half of the modern built houses and barns [the valuable ones] have rods; other buildings generally destitute. Dwelling houses very rarely burnt by lightning; barns occasionally, say four to six a year out of ten thousand, more or less insured.” *No building with rods on it being injured by lightning, [when they were properly fitted,] has come to our knowledge.* At one time we deducted from $1\frac{1}{2}$ to $1\frac{1}{4}$ per cent. for rods, but latterly we make no deduction except on large buildings, particularly barns. There should be a sufficient deduction made to induce owners to use rods, for they are certainly a great security.”

Is it to be supposed that this admirably well managed and highly prosperous company, which has a net *cash capital* of about one hundred and fifty-five thousand dollars, which “make no assessments, but refund on an average more than three-fourths of the premiums received,” thus insuring their members almost without charge, would continue to make the large deduction for lightning rods, unless sanctioned and sustained in it by an experience of more than a third of a century? To suppose so, is to admit that the farmer who *buys* his experience, obtains it at *less cost* than he who accepts what is gratuitously tendered.

* It is suggested that “Worcester county being destitute of mineral deposits is not subject to much damage by lightning.” In some sections from some cause, there is much more destruction from lightning than in others. In one county in this State, and abounding in mineral deposits, three barns were destroyed the same evening by lightning, and within a short distance of each other, (being recently filled with hay and grain,) but none were protected by rods.

For several reasons barns appear more liable to be destroyed by lightning than dwellings: their greater elevation, more combustible contents, and as is generally supposed, the generation of heat, and the vapor arising from large masses of vegetable matter stored therein. Entire exemption from all danger, by the best constructed rods, is not claimed—at least not by the writer; yet the testimony adduced goes so fully to establish the propriety and *general safety* of the measure, that I would advise every farmer whether his own underwriter or not, to attach them to all such buildings. It is believed their protecting influence is more frequently exerted than we are always aware of.

A summer or two past, a heavy thunder storm passed directly over my barn, and confined to a limited breadth; as it approached, a number of trees were struck in its course, and almost in a line with each other. The cloud was low, passed over the barn harmless, but the lightning struck a small locust tree not 20 steps from the building, and of little more than half its elevation. Two other trees, but standing out of the course, the one 20 and the other 50 feet distant, also escaped; proving conclusively, if other evidence was wanting, the exact course and direction of the cloud. The stroke was so very slight, though fully marked and developed on the tree, that although within 80 yards, we supposed the object struck was at least half a mile to a mile distant. The building has two rods, one of nearly $\frac{1}{2}$ of an inch round iron, and the other $\frac{1}{4}$ inch square, connected on the comb of the roof, having four points at equal distances apart, the barn being 50 feet square, and an elevation above the roof of 6 to 8 feet each. My conclusions are, that the rods did act as protectors by carrying off silently a sufficient amount of electricity (but not all) to save the building; and the surplus struck the tree, it being the next nearest and highest unprotected body.

If those, who like Sir Wm. Snow Harris, of England, contend that lightning rods as usually constructed, exert little or no protecting influence, are “in reality highly objectionable,” [unless expensively constructed as he advises; and he is sometimes inconsistent in his statements, and even understood by some as opposed to lightning rods altogether,] will give as strong evidence against, as is here afforded for their use, we may possibly entertain doubts of the genius and wisdom of Franklin. But we meet his “extensive induction of facts, and a large generalization in the application of metallic substances,” by long *experience* in a plain and *practical* way, which every one, from the “Peer to the Peasant,” from the highest to the lowest, can readily understand.

The subject is one of engrossing interest, and might well be more amply illustrated and enforced on the attention of those interested; but my letter is already quite long enough.

I also intended to say a few words as to our prospects for crops. So far as I have observed, and from reliable sources of information in this State, the wheat crop is very short,—I have not seen half a dozen fields of good wheat; generally very light, and hundreds of acres not worth cutting. Oats and grass good; corn quite promising, though short for the season of the year.

I am, respectfully your friend,

EDWARD STABLER.

Several communications received, shall meet attention in our next.

THE BLUE GRASS OF KENTUCKY, AND OF MARYLAND & VIRGINIA.

To the Editors of the American Farmer:

GENTLEMEN:—In the June number of your monthly, which is now before me, I find, in reading the agricultural excursion of the editor to Mr. Dulany's, of Loudon county, Va., the following remark:—“These natural blue grass pastures are the great agricultural feature of this section. Whether this grass is identical with the famous Kentucky blue grass, varying in some degree with the character and condition of the soil, some of the most critical judges are not determined. We think it is not.” In this, you think right. It is not identical with the Kentucky blue grass; but is, as you suppose, the native blue grass, known in Maryland and Virginia as a pest in the wheat fields—it being rather troublesome in the rotation of crops, from its extreme tenacity of life. It is a good, hardy, nutritious species of grass, and with the present high prices of cattle, I am of the opinion that it might be profitable in some portions of Maryland and Virginia to cultivate it to some extent where the soil seems best adapted to its growth, rather than drive it to the fence corners and lanes as is the practice. When permitted to become well set, it affords fine grazing for cattle, but as to its being unsurpassed as a pasture grass, I must certainly differ with you and give my decided preference in favor of the native blue grass of Kentucky. I am so well acquainted with the two grasses, that I can speak with much confidence concerning their characteristic differences.

My object at present is to show the editor, and if he pleases, the readers of the Farmer, wherein the blue grass of Kentucky differs from that of Maryland and Virginia. The difference, on comparison, can be seen very plainly in their general appearance, but more especially can it be seen upon minute examination. They differ also in the quantity and quality of grass; the Kentucky species yielding more and better pasture by a large per cent. The two specimens* which I send you are grown upon my place. The one marked *Poa Pratensis*, is the true and genuine Kentucky blue grass—the common grass with which our yards and our woodland, as well as open pastures, are fully and thickly set, and if permitted to grow through the summer ungrazed, bends and mats its blades together so completely as to entirely cover the ground, forming hiding places for rabbits. The other marked *Poa Compressa*—found in a field near my house, and all that I know of in this section—is the true Maryland and Virginia blue grass. I made its acquaintance in early youth, and recognize it wherever I see it as the same tenacious grass of old Maryland—the cherished home of youth.

The Kentucky blue grass is a deep green, the stem growing from one to two and three, and sometimes even four feet high, erect, round and tapering. The Maryland blue grass, is a bluish green, the stem generally from twelve to eighteen inches high, bending at base and compressed or oval in shape. The Kentucky blue grass has numerous long, tender, deep green, linear leaves from one to two and three feet long, growing up from the root of the plant. The Maryland blue grass has no radical leaf at all—no leaf except

* The specimens sent show the difference between the varieties very distinctly.—Ed.

the small one sheathing and growing out from the stem.

This constitutes a remarkable difference in the two grasses. This long tender leaf is not only excellent for aged stock, but young calves and colts thrive and fatten upon it more readily than upon meal; and if left to grow ungrazed through the summer for winter use, I consider an acre of it worth an acre of corn. Cattle and horses can, and do winter upon it without any additional food. Even in time of snow, unless it be too very deep, they push it aside—eat and go on their way rejoicing. The distinguished botanists, Muhlenberg and Darlington, in speaking of this plant, term it "optimum pabulum;" from its being unsurpassed by any of the grasses known in our pastures as a rich, luxuriant and nutritious grass. It is not limited in its habits to any single locality, though the soil of Kentucky seems best suited to its perfect and full development. It grows well in a portion of Tennessee, Indiana, Illinois and Missouri. I have also seen it in Northern Ohio and Western New York; and if I mistake not, it forms the sod around the crystal palace. You will also find bunches of it, not arriving to much perfection, however, here and there in your own State. I know I have recognized it in Middletown Valley and in portions of Pennsylvania; the artificial grasses of the meadows gradually give way to it, until it holds entire possession of the soil, forming a sod of pasture grass unsurpassed by anything which it has driven out. Indeed it is in Chester county of this State that the distinguished Darlington, viewing it as unrivaled, terms it "optimum pabulum;" and in speaking of the *Poa Compresa*, he says, "a good nutritious grass for cattle, but not so much esteemed as the *Poa Praetensis*." The comparison of the two grasses might be carried out more minutely, but it is presumed sufficient has been said to show their main points of difference. Both of them are to some extent valuable grasses, and both of them bear a general family resemblance, but are two distinct species. So too, the broom corn, and the newly introduced sugar cane have a strong resemblance, and both belong to the sorghum family, but whilst one is used only in the manufacture of brooms, the other claims to yield us vast crops of forage for our stock, or if preferred, fine syrup and sugar for our tables. I have called the two plants natives—they are both supposed to be naturalized foreigners, following and diffusing along the wide wake of emigration.

The May and June numbers of the Farmer are the first that have reach me. It commands itself to the farming community as a cheap depot of agricultural knowledge.

Yours, &c.

H. C. HERSPERGER.

P. S.—The wheat crops in this section have improved astonishingly, and if not injured by rust will make, I think, a fair average crop. The rains, however, continue frequent & heavy, and the great apprehension of farmers is that it may yet be destroyed by rust. If you know where the Turkish Flint Wheat, spoken of in the last Patent Office Report, can be obtained, I would like you to notice it in your paper. It is spoken of as succeeding fine in Virginia.

Respectfully yours,

Jessamine Co., Ky., June 22d, 1857.

I. C. H.

 "Common Sense" is in type.

MR. GOWEN'S SALE OF SHORT HORNS.
To the Editors of the American Farmer:

GENTLEMEN:—I beg leave to make a few remarks in regard to my late sale of Cattle, as the account of which in the last No. of your useful paper, needs, I think, some explanation. And first, the young Bull, Dashwood, was not bought by Mr. Reybold, but by Mr. Caldwell. Mr. Reybold was the buyer of Montgomery at \$270, the only 2 year old Bull on the catalogue; and at his age a most splendid animal. If he were shown at our wharves as landed from England, I am sure it would not excite surprise were we told that he had been bought at 200 Guineas—Montgomery will do credit to "Little Delaware," and Mr. Reybold his spirit-ed owner.

The twelve cows sold (three of them over 10 years old) brought \$1,880, average of each \$156. Had young Dairy Maid, (bid in,) sold at her price, \$500, the average of the thirteen would have been \$183.

Of the fourteen on the catalogue classed Heifers, two only had reached the age of two years, and nine of them were under one year, mere calves; the fourteen brought \$1,585, average each, \$113.

Of the eight young bulls sold, one only, Montgomery, was two years old, the remainder were under two, four of them calves, these eight brought \$925, to which may be added Earl of Durham, bid in at \$150, and since taken at that price by Dr. Wm. Moore of Womelsdorf, Pa., making for the nine \$1,075, average each, \$119.

Under the circumstances of the unfavorable weather that prevailed for days and nights preceding the sale, and the morning on which it was held, the sale if not wholly satisfactory to me, should by no means be considered discouraging to breeders of Short Horns; and it is to that effect alone, that I trouble you with these explanations. Thirty-five Head, consisting of cows, some of them quite old, young Heifers, mostly calves, and young Bulls, one of which only was two years old, brought \$4,540. I might ask, could thirty-five head of any other breed, of similar ages, be found on any one farm, that would have brought at auction the same amount to their owner? But this I trust will be the least I shall have to boast of, if those who bought the animals will follow my example, and make them as profitable to themselves and the country, as their Sires and Dams proved while under my care.

Allow me to instance a case or two by way of encouragement to breeders of fine cattle—Isabella, No. 4 on the catalogue, bought by Mr. Labdell, of Del. for \$300, (she ought to have brought \$500.) This cow, bred by me from Beauty, No. 1, also bred by me, brought with her calves, \$1,025.—This with the milk and butter she yielded, must be considered profitable breeding; she will calve to Duke of Cumberland in October. Well, let us look at her Dam, Beauty, No. 1, now over 10 years old, which I bred from Bessy Bell sold to Col. Capron in 1847. Beauty's calves, including Isabella, as above, have brought me \$1,150, to which add \$100, the price she brought at sale, making \$1,250; but this is not all, for I retained a 4 year old cow, Brunette, a calf of hers, which as a breeder, I value at \$250, besides, the young Heifer Blanche, withdrawn at the sale, value \$100. These added to the \$1,250, closes Beauty's account at \$1,600, with the exception of the Milk and Butter she yielded since her first calving, equal in amount, I'll

warrant, to the yield of any cow in the United States, for the same period; she was of the strain of my celebrated Dairy Maid. Beauty will calve to Duke of Cumberland in December. Another, Victoria, bred by Mr. Remson. She stood No. 2 on the catalogue, is over 11 years old; I owned her since she was quite young, and sold of her calves previous to the sale, to the amount of \$550.00
And at the sale, two, Fair Star, and Earl of Durham, \$280.00
Presented a young Bull calf of her's to Col. Hill of Fayette Co. Pennsylvania, value, \$100.00
She brought at sale, \$110.00

To which add young Dairy Maid, bid in at 1040.00
500.00

and we have Victoria's account to stand, \$1540.00
To which should be added the milk and butter, to a large amount. A better dairy cow, and breeder, no man could desire than Victoria. She will calve to the Duke of Cumberland in August. Beauty, Victoria, Daphne, with Miss Model, and some other fine animals, were bought by the Hon. Jacob S. Haldeman of York Co. Pa.

While on this subject, let us look at the credit due to the young Bull, Duke of Cumberland, now 4 years old. Of this noble animal's getting, though only in use but about two years, there were 17 on the catalogue, which brought at the sale \$1,865.—They were splendid specimens, and did him great credit. Besides, every cow sold, was with calf by him. Such is my estimate of the Duke, that I would reckon his calves when dropped, if properly attended to, worth as much as was paid for some of their Dams at my sale. In blood, points, vigor and temper, he can hardly have his superior.

Very respectfully, yours,
JAMES GOWEN.

Mount Airy, July 14th, 1857.

CROPS—DRILLING WHEAT.

To the Editors of the American Farmer:

In this section we are well through with the Wheat Harvest; quality of grain good, quantity short of an average. Corn late, chinch bug appearing; his damage will depend much on the seasons; oat crop a fair average; clover and grass not much made as a crop. Tobacco crop, which is much cultivated, and absorbs great attention, I fear will be an inferior crop; there has been a great scarcity of plants, and they very small; weather cold and dry. In my field they are from the size of your hat down to two fingers, and in some hills none.

I have read the paper in your last Farmer from that able correspondent, M. T. Goldsborough, on Drill and Broadcast wheat seeding; he expresses my views much better than I could. I observed this Spring considerable difference between drilled and broadcast wheat, the odds much in favor of the drilled; all my crop was drilled; it is good in quantity and quality, but the guano attachment is not to my drill; I would much prefer it now; at the present price of guano, it would save me some labour, which is an object worth looking to. My plan is as early in this month as I can spare the labour, I fallow my Clover (which has been grazed and trod down by the stock) about 8 inches deep and drag—about the last of September, or 1st October, when I have time to spare from the Tobac-

co, I spread the guano, which was pulverized and mixed with $\frac{1}{4}$ its weight of plaster, and turn it under with a one horse plow; I then open the water furrows deep with a two horse plow, clean out with hoes, make all even, so my furrow is in the sub-soil; I then plant my wheat with the drill about two inches under surface, and 2 bushels per acre; I then run some water drains with the small plow where the land is stiff and holds the water, and drop into hill-side ditches; those drains are 4 or 5 inches deep; last, I clean all out with the hoes, and I am done for the present. This mode I got from Sands' Farmer, and what little I know about farming, I feel indebted to that paper for.

Those water drains, where the land is stiff and they are wanted, I have them from 10 to 12 feet apart; and on the tops of my highest hills where the land is flat, long before harvest you cannot see a drain; they are covered with wheat, even, and some places from the bottom of the drain.

THOS. HICKSON.

Farmville, Va., July 14th, 1857.

MAKING AND SAVING MANURE—THE CROPS.

To the Editors of the American Farmer:

GENTLEMEN:—I will give you my experience in manures—and it is my opinion, that if farmers would spend but half the money now paid for guano, in accumulating rough materials and the waste about their own premises, they could manure more ground than they could by guano, and of more durability—I for one will touch it lightly.—Every farm that produces 300 bushels of wheat, can make that amount of loads of manure if rightly arranged. The proper way to farm in our county, is to have your ground laid off in lots of suitable size, and farm in rotation, and when the fields are in grass, then manure on the surface with all kinds of manure—have your barn yard made dish fashion, and haul plenty of leaves and muck on it every month in the winter season, and feed on it—use some plaster on the same, and with clover, we can make the poorest ground rich.—The farm that I now reside on, was worn out 25 years ago, and would rent for only \$25 per year. I bought the same 5 years ago, for \$12.50 per acre, and last Fall I was offered \$39 per acre for it. I have raised 45 bushels of wheat, 70 of corn, or 60 of oats, to the acre, and it is getting better every year. I make and haul out 300 2-horse loads of manure every year.

If farmers would observe the rules laid down in your journal, and save all their barn and pig manure, soap suds, chamber ley, and other wastes, and compost them with the scrapings of the fence corners, ditches, &c. they would find out in the course of a year that they would save an amount of manure of which they had but little idea of.

Since I wrote to you in May, the wheat has improved finely, but I am afraid the field weevil is going to destroy the late sown, as it has a great many in it at present. I have been examining mine, and I think the prospect is bad—our harvest is two weeks later than usual, and I think those who expect to get wheat at a low figure, will be mistaken. Our county is a wheat county—from a fourth to a third of the cleared land is in wheat, and it is most all cleared—I think it will not be any better than last season.

BAILEY SHULTZ.
Arnettville, Monongahela Co. Va., June 29, 1857.

IMPORTANT TO FARMERS.

To the Editors of the American Farmer:

Gentlemen:—I have noticed statements from time to time in the columns of your very interesting journal, in regard to the present crop of wheat in the United States, &c.

Now, as far as my observation has gone, I can see no such prospects as I have seen published through the medium of the newspapers, and they are very much exaggerated. I have no wheat of my own to dispose of—but I would advise all those who have wheat to sell, not to be in a hurry about selling. Where there is one good crop of wheat made this year, there are fifty bad ones. I have conversed with gentlemen, who have travelled through most of the Northern and Western States, as well as a portion of the Canadas, and from their accounts, ordinary fields of wheat here in Virginia, were better than the best there.

Now where are there such great prospects for such big crops of wheat this year? For we all know they are the “main States” in the Union for wheat, and generally of the finest quality, and in abundance. Now, let every farmer make his own calculation, by his own as well as his neighbor’s crops; and I guess he will find instead of an abundance of wheat for home and foreign demand, that there will not be more than enough for home consumption, or such small amount over, that it would not be worth naming.

I would advise all farmers to keep their wheat out of the market until November at least, unless they can get \$2 per bushel for it. Because in that time, all the small crops of the poorer class of the community will have been carried into the market, and have been ground by the millers.—That is what keeps the price of wheat down generally at the opening of the market. The small crops are generally carried into market as soon as it is threshed, let the price be what it may—and the consequence is, the millers have plenty to keep them pretty well employed—and another very important item is this: Some farmers deposit their wheat on “storage,” with the miller or merchant; in that way he has a plenty to grind and speculate on, until the farmers are compelled to sell; besides, the farmer is losing interest on the money he gets for his wheat, while the miller is turning it over and over again, without paying anything on the amount of wheat stored with him. Farmers quit “storing” your wheat, and you will get better prices, which will be to your interest.

Now farmers keep your eyes open, and have some judgment of your own—instead of listening to speculators and others, who take no interest in your welfare—and you will not be caught napping so often.

Now, so far as my observation has gone, instead of a full average crop of wheat this season, I don’t think there will be the third of an average crop—and I would advise all farmers to keep their wheat out of the market unless they can get \$2 per bushel for it, as my humble opinion is, that those who hold on until the spring will get \$2.50 or \$3.

Don’t let a little pressure on the market cause you to force your wheat in.

A MINUTE OBSERVER.

Stafford Co., Va., July 15, 1857.

[Our correspondent will observe that we have omitted a portion of his remarks. Indeed, we have hesitated about publishing any portion of his com-

munication, he having failed to give us his name. In some cases more than half the interest is lost, by such an omission. We wish to give truthful statements, but expect to be armed with the proofs of the correctness of what we do publish—consequently where this is not furnished, as in this instance, the information contained must go for what it is worth, in the estimation of the reader.—Ed.]

WHEAT DRILLS WITH GUANO ATTACHMENT—
CROPS, &c.*To the Editors of the American Farmer:*

DEAR SIRS:—In answer to your earnest appeals to correspondents for information on the subject of Drills with guano attachments, I will with pleasure give the result of my limited experience and observation,—and thereby fulfil the “Golden Maxim.” Drills have been in general use in my neighborhood for some years. I think much of them for many reasons generally known to farmers. The Drill with the Guano attachment has also been in use some time, and I believe much thought of generally by the farmers who have used them. I sowed last fall for the first time, ninety pounds of best Peruvian Guano mixed with Plaster to one and a half bushels of wheat per acre, and can truly say, I am highly pleased with the result, for it promises a good yield. Part of the same field was manured with ten four horse loads of barn-yard manure, and I think the guanoed part the best; it stands thicker and more regular. My neighbour sowed 300 pounds of guano, broad-cast, ploughed in, per acre. I think mine from appearance the best. I believe 100 pounds of guano sowed with the Drill, equal to 200 pounds broad-cast, or ten four-horse loads of barn-yard manure, per acre. I shall continue to use guano in the Drill till convinced of the error. Though my opinion is, where we have regard to the improvement of the land, it is best to sow guano broad-cast. But farmers here make Lime and Clover the basis for the permanent improvement of their lands, and only use guano where our manure does not reach out, and to increase the yield of our crops. Our wheat will be good in our section of country, though we hear of failures in many places. Our grass, oats and corn are very good up to this time, although we have had an over-drenching with rains. Our harvest will be unusually late; no grain cut yet with us. The Drill I used, to sow last fall, was made by Potts & Stoner, Manchester, Carroll Co., Md. with a guano attachment by Doub & Glaze, of Frederick City. It worked well, and I can recommend them as among the best Drills I have seen work. I am encouraging my neighbours to take your valuable paper, the Farmer, all I can, and my mate you will shortly receive in the club list we are making up at Brueceville. With these few lines, which you will excuse, for I know more about holding the plow handle than writing for the Farmer, I remain, truly yours,

JOHN WETBRIGHT.

Monocacy Valley, Frederick Co. Md. July 8, 1857.

[We thank our correspondent for his “experience,” and although he may be more accustomed to holding the plough than the pen, still he has said in a plain manner all that is necessary to enlighten his brother farmers, upon the subject of

which he treats. We are always glad to hear from the farmers of the rich and well farmed section of our state, from which our correspondent hails.—
Ed.]

PHOSPHATIC FRAUDS—No. 3.

To the Editors of the American Farmer:—

The manufacturers of artificial manures generally commence with honest intentions to supply the farmer with a valuable fertilizer in a concentrated form; and they continue to do so until the character of the compound is fully established, and numerous certificates from good and honest men give the assurance that it excels the most approved manures; but then the demand comes, and they are driven to turn away their customers, or purchase materials for several hundred dollars per ton, and sell them for \$40; or they must dilute the compound as the supply of refuse fails.

On several occasions I have discouraged honest men from commencing the manufacture of concentrated manures, by convincing them that the above might be the history of their enterprise.

Professor Johnson, of Yale, assures us that he believes an unlimited supply of ground bones can be had for \$10 per ton, or 25 cents per bushel. Now if a learned man can make such an error by noting the price of such materials in small towns where there is no demand, can we not charitably suppose that others with a less comprehensive view, honestly believe that at \$40 per ton for super-phosphates, their fortunes can be made?

Refuse salts of potash and soda can be had in our large cities for \$15 per ton; but create a demand for these, and at once their price is beyond their value; indeed the supply is soon exhausted, and then the commercial article must be bought for \$140 per ton and sold for \$40, or left out altogether. I recommended a gentleman to apply refuse packing salt to his land a few weeks since, and he subsequently asked me if any other salt would not answer, as the price of refuse salt in Baltimore was higher than the pure article.

Why do our Baltimore manufacturers allow De Burg to supply nearly all the super-phosphates that are consumed by the farmers? Is it true, that like refuse salt, other refuse materials are more expensive in Baltimore? One of the most experienced and successful manufacturers of bi-phosphates in Baltimore, assured me a year since that he would prefer to make pure bi-phosphates of lime for \$30 per ton, than such a compound as De Burg's for \$35 per ton; and since that time, De Burg has nearly doubled the proportion of ammonia in his compound: nearly twenty per cent. of salts of ammonia, or more than five per cent. of pure ammonia, with 9 or 10 per cent. of soda and potash, and a large portion of sulphates, phosphates, &c.; indeed, the last lot is, I think, the best lot I have seen.

Regarding health alone as the object, would it not be better to encourage some enterprising man like De Burg to convert all the refuse animal matter of Baltimore into an inoffensive compound? He can compound animal matter with acids, and destroy all unwholesome emanations as soon as these nitrogenized matters enter his manufactory, otherwise their nitrogen becomes the vehicle of disease. Animal substances alone, do not seem to generate disease; otherwise our slaughter houses would be the foci of malaria—but it is the mixture of animal substances with vegetable matter in our

streets that produces active fermentation, and it is from such mixtures that miasma are evolved; and it is such mixtures which, when reduced to fine powder in the streets, get ready access to the lungs.

Three or four years since, I endeavored to interest some of our Baltimore manufacturing chemists in calculations I had made with regard to the enormous waste of blood and refuse from animals killed in Baltimore; also the many thousand bushels of soot, (worth, as manure, its weight in wheat.) I devised plans for the cheap and certain collection of all these materials; moreover, the ammonia from the gas works I proposed to concentrate without evaporation, and save by a cheap process at the gas house—but I could not make the most credulous believe that "a business" could be made of all this; indeed, it was roundly asserted "that a few tons of any concentrated manure at 40 or \$50, would overstock the market," "that something cheap would sell," and that large profits and small sales was the order of the day,—in vain did I strive to convince them that a small per centage of profit and large sales was the great secret of success in such an enterprise. De Burg has built upon this principle, and although he could hardly get any one to give storage to a few tons of his compound a few years since, and they were sold with difficulty on a long credit—last year, I understand that he sold eighty thousand dollars (\$80,000) worth in Maryland alone.

"Certificates, their use and abuse," will close this series with regard to "Phosphatic Frauds," if I can get a little space in the next Farmer, and secure a little time in the interim.

DAVID STEWART, M. D.,

Chemist of Md. State Ag. Society.

St. John's College, Annapolis, Md., July 20, 1857.

DRILLS WITH GUANO ATTACHMENT, &c.

HOLKHAM, NEAR WOODVILLE DEPOT, {

Albemarle Co. Va., July 22nd, 1857. }

To the Editors of the American Farmer:

Your esteemed favor asking for a communication detailing my experience on the subject of wheat drills, guano, &c. reached me in due time, but an unusually large wheat and hay harvest, together with the warm weather, has delayed my response.

The very high price of Peruvian Guano, the fact that more than one-third applied broadcast, (by accurate analysis) is not taken up by the wheat crop, coupled with the belief founded on several most satisfactory and conclusive experiments, that it is not a permanent improver of the soil, induced me to seek for some other mode of application, requiring less, and therefore more remunerative. The Drill with guano attachment, naturally occurred to me as a great labor, as well as a guano saving machine, provided one could be found to perform what was promised, of sufficient strength and durability, and not too complicated. Most flattering accounts, certificates, &c. were to be seen in the various publications—but after learning the opinions of some of the most practical and enlightened agriculturists of Virginia and Maryland, who had seen and used different varieties of the drill, I was induced to order one of Bickford and Huffman's, of Macedon, New York, for myself, and also for some of my neighbors.

Several varieties have been tried in this neighborhood, all of which performed so unsatisfactorily that the small number not returned, if not abandoned altogether, will be but little used, and nearly all

the above farmers have ordered Bickford & Huffman's Drill. That this is far superior to all others, I am perfectly satisfied, and this opinion is fully substantiated, by all who have used it, within my knowledge, independent of numerous certificates of agriculturists, whose reputation, skill and practical knowledge places them above the suspicion of either intentional or unintentional deception—about 3-5ths of my wheat crop was put in with the Drill, the balance with large cultivators—and immediately contiguous in different portions of the field, the drilled wheat was several days earlier maturing, decidedly superior to the broadcast, and will make from $\frac{1}{2}$ to $\frac{1}{3}$ more, in some places double. As this may appear extravagant, it may be proper for me to mention that the attention of several of our most intelligent farmers was called to this marked difference, who concurred with me in the above opinion, and several at once determined to procure B. & H's Drills.

I applied Reese's Manipulated Guano, Mexican and Colombian Guano, also De Burg's Super Phosphate of Lime, all except the first, mixed in different proportions with Peruvian Guano, and while all will doubtless benefit the soil and after crops, the character of the wheat seemed almost entirely dependent on the quantity of Peruvian Guano applied—the result of which experiment was anything but pleasant to me, smarting under the high price of Peruvian Guano, which has become almost indispensable to wheat growers in Virginia and Maryland. Though not precisely accurate, I generally applied with the drill from eighty to one hundred and twenty-five pounds Peruvian Guano, mixed in different proportions with Phosphatic Guano, Super Phosphate Lime, &c.—broadcast from one hundred and seventy-five to two hundred pounds of same mixture. On my latest seeding of about thirty-five bushels, sowed last of October, and the first week of November, applied with the Drill a larger quantity of Peruvian guano, with a small amount of plaster—the effect was palpable to every one whose attention was called to it.

The attachment will distribute Peruvian Guano, with sufficient regularity, if dry enough to weigh not more than 57 pounds to the bushel, after being pulverized. If heavier, and of course damper, Colombian Guano or plaster should be added, the quantity dependent on its condition.

The condition of the guano affecting so much the distribution of it, the practiced eye is the best gauge or regulator, and the openings through which it passes must be enlarged or decreased accordingly. The drill sows very accurately wheat which is perfectly clean, as it should always be for seeding.

Excepting a small portion of my latest seeding with the drill, where I sowed $1\frac{1}{2}$ bushels, I sowed only one bushel to the acre, and I will make several hundred bushels more than I have ever made heretofore. This last was considerably thicker and more luxuriant than broadcast do. adjoining $1\frac{1}{4}$ bushel to the acre.

While I have always been an advocate of what some considered rather thin seeding, $1\frac{1}{2}$ bushels to the acre will, I think, generally answer best—a smaller quantity might, some seasons, prove too thin—and much more, unless a remarkably fertile soil, would probably be dwarfish and sedgy. Several persons who had used other drills, in different portions of the Piedmont region, predicted that my wheat would prove to be too thin; that they had found it necessary to sow a good deal more with the

drill than broadcast. This was easily accounted for—their drills operating imperfectly, not sowing much more than half the quantity indicated.

As to the labor saved, I had a grass seed sower attached behind, which sowed clean timothy seed beautifully, and a man, small boy to drive, and three horses to it, accomplished more than five men, seven horses and two large cultivators, requiring each three horses, the other being necessary to mark off the lands for the seedsman—the additional men being necessary to sow the wheat, guano and grass seed.

The inference from the above is, that no one should purchase a drill unless he anticipates giving a good deal of his attention or his overseer's to the management of it—so very minute a quantity of guano passing through orifices so small, a feather, straw, &c., may obstruct its regular distribution; hence, the practised eye is constantly needed to detect any stoppage or irregularity.

A correct estimate of the labor, guano and wheat sowed, will place in the strongest light the superior advantages of the drill. The improvements in Bickford & Huffman's Drill, suggested by Mr. Goldsborough in his valuable communication in the July No. of the Farmer will, I trust, be adopted by them; and with all due deference I will suggest that they should have the spindle in the axle-tree made larger, especially for rough, rolling land,—a farmer in this neighborhood was compelled to send his to a shop to have it straightened, and it was bent sufficiently in my drill to cause the iron covering protecting the cog-wheels to strike and cut the spoke, and very soon to be broken.

Having written the above rather hurriedly, and perhaps not with that perspicuity so desirable in the discussion of such subjects, I will give, in short, the conclusions which I have arrived at:

That at the present prices of Peruvian Guano, it is extremely hazardous to apply the quantity necessary to be sown broadcast. That Peruvian Guano, even at present prices, is worth more than all other fertilizers for wheat, and from 100 to 125 lbs. applied with the drill will make a better crop than 150 to 200 lbs. broadcast. That a large amount of labor is saved when absolutely required for taking care of tobacco, corn and fodder. And finally, that a peck of wheat in every acre, may be saved by the drill without any detriment whatever to the product. With kind regard, I am most

Truly and faithfully yours,
JOHN R. WOODS.

P. S.—As there are doubtless many who believe that Peruvian Guano is a permanent improver of the soil, it will probably be not unacceptable to your numerous readers, to detail the experiments which convinced me that this opinion was erroneous, at least to a great extent. Several years since I applied guano to a small square of our best chocolate soil, at the rate of about 2000 pounds to the acre, which was thoroughly spaded and raked in, so as to bring about a perfect admixture of it at least 12 inches deep—to another square of this red soil, in the same field about 700 pounds. The wheat on first square was very indifferent, a good deal destroyed by the excess of guano; a heavy crop of weeds sprung up but no clover; sowed it next spring and it took well. On the second square the wheat was considerably better than immediately contiguous, where from 175 to 200 pounds were applied, making one half again as much. But the clover and

several crops since grown on both squares have been no better than on adjacent soil.

JOHN R. WOODS.

HOLKHAM, ALBEMARLE, VA. }

July 23d, 1857. }

To the Editors of the American Farmer:

GENTLEMEN:—You will observe that Mr. Goldsborough and myself agree in our views as to the advantages of the drill, compared with broadcast culture, differing only as to the benefits to the wheat crop from the application of Phosphatic Guano.

After enclosing my letter yesterday, it occurred to me, it would be desirable that I should explain the cause of this apparent discrepancy.

Residing as Mr. Goldsborough does on the Eastern Shore of Maryland, the soil differing so much from ours, the preparations of lime, especially the phosphates, may produce a great effect on the wheat and other crops; while our soil, containing already a large per centage of lime, 2 per cent. according to the analysis of Professor Wm. B. Rogers, does not need its application as other soils more deficient.

The astonishing results in lower or tide water Virginia from the use of marl, oyster shell lime, &c., (not used here at all, within my knowledge, for their immediate effect on the wheat crop,) will illustrate fully the idea which I wish to convey. The farmer who can afford to look more to the ultimate improvement of his soil than to the crop, might use a mixture of Peruvian and Phosphatic Guano; and here let me advise all farmers to do all of the manipulating which guano may require, on their own premises. Without any knowledge of the parties preparing Manipulated Guano, the temptations to practice frauds by dishonest persons are very great, and the charge for manipulating is too great also. Reese's Manipulated Guano sells in Richmond for \$53* per ton of 2,000 pounds; $\frac{1}{2}$ ton of Peruvian and $\frac{1}{2}$ do. Mexican A.A. can be bought by the small quantity at \$43. The farmer can use his barn floor on a rainy day, thoroughly mix the two, and with one of the best of the different varieties of horse mills, grind it as fine as he chooses—the amount saved will soon pay for the mill, and what is exceedingly important, he knows precisely what the mixture is composed of.

I stated that I did not consider Peruvian Guano a permanent improver of the soil, except to a very limited extent, and therefore advised its application with the drill as more remunerative.

The increased growth of clover is but a small compensation for the large amount of guano not accounted for in the crop of wheat when applied broadcast at the usual rate—200 pounds to the acre.

In much haste,

I am truly and faithfully yours,

JOHN R. WOODS.

[*The price in Baltimore is only \$48, for $\frac{1}{2}$ Peruvian and $\frac{1}{2}$ Phosphatic Guano.—*Ed. Far.*]

SINCLAIR & CO'S CORN PLANTER.

CLIFTON, BRUNSWICK CO., VA. }

July 15th, 1857. }

To the Editors of the American Farmer:

GENTLEMEN:—Seeing in one of the numbers of the "Farmer," for the spring 1856, a communication by you of Sinclair & Co's. Corn Planter, I procured one of Messrs. John Rowlett & Co., Pe-

tersburg, with which I planted my crop in a very satisfactory manner; I got an excellent stand at once, for scarcely a plant was pulled up by birds, although my neighbors, who planted with the hoe, complained of great difficulty in getting a stand from this cause, and my negroes who had "patches" in the same field with my crop could hardly get a stand at all by planting with the hoe and foot; they said that "the crows could not pull up my corn, for the Planter put it in so hard they had to leave the grain in the ground where they pulled up the stalk." They certainly did not pull it up, and it maintained the finest stand I had ever seen, making a large crop, though the seasons were not favorable. Our growing crop was planted with same implement with like success as to a stand. A short time since I met with a gentleman from Dinwiddie county, who had used this Corn Planter in 1855 and 1856, with results identical with my own. His corn land this year being very level, he concluded to plant it four feet distance each way, and consequently had to plant with the hoe, as the Planter does not drop the grain at that measure, but the birds made such havoc with the young plants that he had only succeeded after frequently re-planting, in obtaining a partial stand, and he has resolved always to use the Planter in future.

Under these circumstances, I take pleasure in recommending the use of "Sinclair & Co's" Corn Planter to agriculturists, as it not only plants the grain in a superior manner, but is also one of the greatest time saving implements I have ever used; for when the land is properly prepared, one man with one good horse will not consume over three days more time in planting the crop with it than the whole force on the farm will require, provided the crop is in proportion to that force.

JAMES TURNER POPE.

CORN AFTER BUCKWHEAT.

HOWARD CO., MD., July 4th, 1857.

To the Editors of the American Farmer:

Knowing the zeal you have always manifested for the cause of agriculture, and the cheerful willingness exhibited on all occasions, induces me to propound the following question, and ask the favor of a reply of your opinion through your invaluable publication:—

Is there anything in buckwheat antagonistic to the successful growth of corn?

My case is as follows:—Three years ago I broke up a piece of ground, which had run wild for thirty years; it was sown in buckwheat, which only turned out so so—it was not cut, however, until it was dead ripe, thereby shattering when cut. The next spring it was put in potatoes, manured, neither very liberally nor grudgingly. The season, as you may remember, was one of unusual drought; yet what potatoes I dug, were sound and of good size. This spring quite early the same ground was plowed and put in corn, (May 6;) soon after being planted the whole ground was white with buckwheat; I immediately had it cultivated, and, as I thought, killed all of it. In two weeks after, I again had it worked both ways with a double shovel, and now I have again gone over it with a shovel; at this day it is not much higher than my pen—while a field of 37 acres put in a month later is looking very healthy, and above my knees. Your attention will much oblige an

OLD SUBSCRIBER.

REPLIES TO THE ABOVE.

There is nothing in buckwheat, of itself, antago-

nistic to the growth of corn, or any other vegetable production. That it is not an exhauster of the soil, is proven by the fact that it will grow fair crops on poor land. From its construction of leaves, it draws much of its organic food from the atmosphere, and hence it is one of those green crops that are ploughed in for the enrichment of the soil.

We have said that there is nothing antagonistic in buckwheat to the growth of corn. By this we mean to say, that there is nothing in the constituent elements of buckwheat that operate unfriendly to the corn; on the contrary, if the former be ploughed in, when decomposed, it will yield food up to the latter and promote its growth. But if buckwheat springs up and is permitted to grow amidst a crop of corn, as such it becomes a weed and cannot fail to materially interfere with the growth of the corn. Corn requires the most cleanly culture, and cannot bear the presence of grass or weeds of any kind.

From the statement of our correspondent, as to the character of his land, we apprehend that it was poor when turned out to grow wild some thirty years ago, and by remaining so long unworked that its fertility had not been but slightly, if at all improved. And we hardly think that the manuring that he gave his potato crop added much to its fertility. The corn plant is one that requires to be manured most bounteously. Without it receives plenty of food it cannot prosper. We incline to the opinion that the lowness of his corn arises from a combination of causes, to wit—first, from the want of fertility in his soil; secondly, from its being overrun with the buckwheat; thirdly, from the coldness of the weather in May and June, and fourthly, from the superabundance of rain which characterized both these months, preventing the working of the corn in season; and fifthly, from the absence of the sun and heat.

Corn should be generously, nay lavishly manured; the ground should be ploughed deeply, thoroughly pulverized, and the corn worked every two weeks from the time it is 3 inches high, till it tassels and is in silk, and at no period should weeds be permitted to encumber the ground, and repress the growth of the plants.

RUTA BAGAS.

To the Editors of the American Farmer:

As we are near the time for planting Ruta Bagas, I send you a preventive against the ravages of the Turnip Fly which I have practiced for twelve years without having one single crop destroyed. I must add, however, that about the time I adopted it, I commenced applying Peruvian Guano, harrowed in before drilling the seed, and that this has, no doubt, contributed in accelerating the growth of the turnips.

Extract of an account of a meeting of the (British) Royal Agricultural Society's Council contained in the Albany Cultivator for 1844:

“Another gentleman spoke of his experience which has been very successful. A month before he begins to sow his turnips, he provides vessels for the reception of the seed, adding to every twenty pounds of seed, half a pint of linseed oil, taking care to have it well mixed, then adds a pound of flour of sulphur, and every morning has the whole rubbed between the hands to get the seed in a proper state for drilling. He has prac-

ticed this mode for twenty years without a single failure.”

As I do not sow more than a couple of pounds of seed, I merely stir it with a wooden spatula dipped in the oil until the whole of it is oiled, then mix as much flower of sulphur as will stick and spread thin upon a board, stirring every day or two, and in a week or ten days it will be fit to drill. I have kept one year, seed prepared in this manner, which was as good as ever. Yours, with respect,

A. B.

THE HOG CHOLERA.

UNIONTOWN, KY., June 23, 1857.

To the Editors of the American Farmer:

I send you below the experience of a gentleman (in Uniontown, Ky.,) who has been feeding Hogs, in respect to what has been called the Hog Cholera. If you think it worth a place in your paper, you can use it as you think proper.

I give you below his own words. J. H. B.

“It made its appearance among my hogs about the first of last February. I had at that time about eight hundred head in my pens, feeding on still slop, and they commenced dying, from five to twenty head in twenty-four hours; I tried many remedies, but none seemed to check the disease until I gave four hogs, that were nearly dead, about a tea-spoonful of arsenic, (each) and they immediately got well. I then put a half of a pound of arsenic in the slop, every two or three days afterwards, until the disease disappeared, which was in a very few days after I commenced the use of it, and there has been no appearance of it since among my hogs. I have been for the last month or two feeding a little over a thousand head, and my hogs, ever since I commenced the use of arsenic, have been healthy and thrive finely, but I still give them half a pound about once a week.

A. C. STAGG.”

[For the American Farmer.]

A PROBLEM FOR FARMERS TO SOLVE.

A gentleman in my immediate vicinity last year, planted a portion of his land in peas, which was cultivated in the usual mode; immediately adjoining, above and below he had a luxuriant pea-fallow. At seeding wheat time the cultivated pea-vines were drawn up and removed from the land, and the peas on the fallow turned under, the thin portions of land had equal quantities of guano applied, and wheat sown thereon. On the 23rd of May last I was invited to inspect the wheat sown, and to my unbounded astonishment found that on the cultivated pea-lot standing three feet in height, whilst that immediately adjoining on the pea-fallow only eighteen inches—to day (the 29th of June) it is reaped, and it is the opinion of the owner, as well as myself, that the cultivated lot will yield twice the amount of the fallow lots.

RICHARD ROUZEE.

Essex County, Va., June 29th, 1857.

“It should be laid down as a general rule, that no land ought to be sub-soil plowed unless it has been previously drained; for, where the sub-soil is so porous naturally as not to require draining, neither will it require sub-soiling.”—*Stephens' Book of the Farm.*

EXPERIMENTS WITH COLOMBIAN AND PERUVIAN GUANO.

Our practice is to give the results of all experiments furnished us by farmers and planters, in their use of manures, let the result be what it may. With this view we publish the following, by which it will be seen that the mixture of the Peruvian and Colombian has not been effective in the case of the writer—this is a different result from that experienced by others in his State, particularly in Edgecomb Co. where the Peruvian and Phosphatic Guanos have been used very satisfactorily for years:—

Louisburg, N. C., July 10th, 1857.

I have tried some experiments with the Colombian, as follows: On a plot of ground I used Peruvian and Colombian, half and half, and sowed wheat. The two together at the rate of 200 lbs. per acre. On another plot I used one third Peruvian and two thirds Colombian, at the rate of 200 lbs. of the two added together, to the acre. The wheat was not much benefitted by either plan.

On another plot I put Colombian at the rate of 200 lbs. per acre, and on another at the rate of 250 lbs. per acre. I saw no improvement in the wheat where no Peruvian was used. I am trying Colombian on Corn and Tobacco, but am unable to come to a conclusion yet, as regards the amount of benefit, if any, neither crop being sufficiently advanced. The Tobacco has been but recently set out on account of backwardness in plants and want of rain.

Yours, very respectfully,
W. T. JOHNSON.

Since the above was in type, we have received the following, which is a very different result from the above, from a farmer of the highest respectability in Fluvanna, Va. After alluding to the fact of his having asked our advice about manures, and furnished in accordance therewith, he gives the following result: He mixed one-third Peruvian and two-thirds Colombian Guano, and sowed 175 lbs. per acre on land which had been much impoverished by long injudicious culture, so that it could not at the utmost have yielded more than 5 to 7 bushels wheat, under the ordinary culture; he ploughed 8 to 10 inches, harrowed and rolled, and has just harvested the best wheat crop he ever had, from the land where he used the above mixture, averaging 20 bushels per acre of well filled grain, and adds, that he thinks it the best manipulation that can be made.

FLORICULTURE—AUGUST, 1857.

Prepared for American Farmer, by W. D. Brackenridge.

Flower-beds.—The surface of these, owing to the very heavy rains during the last month, will have become caked, and if not already done, should be hoed deep, either with the drag or push hoe, in order to admit heat and air to the roots of the plants, as well as to keep the weeds down. Finish by raking off all weeds and dead leaves, so that the whole may present a neat and fresh appearance.

Dahlias—should be tied up to stakes, at least once every ten days, otherwise they are liable to be snapped off by a sudden gust of wind. Prune off all superfluous shoots, and water occasionally with liquid manure; should dry weather set in, a good mulching of stable manure on the surface 2 or 3

inches thick and about 18 inches wide around the stem should be applied; this will insure a good bloom in the fall.

Chrysanthemums—those raised from cuttings should be repotted for the last time; pinch off the tops to make the plants bushy; water twice a week with a weak solution of guano. Shoots of old plants layered now, will make good plants for potting in the fall.

Pelargoniums—if not already attended to, ought to be well cut back, and so soon as they begin to push again, should be shifted into pots one or two sizes smaller, using a compost of two parts rotten sod, the other two of decomposed manure and sand in equal proportions; water sparingly until the plants come into leaf. Cuttings of the tops prepare and plant in 2 inch pots, using a light rich sandy earth; plunge the pots to the brim in a spent hot bed, watering with care until rooted.

Roses—should be budded and layered this month, and cuttings of the Noisette class planted in sand and placed in a cool situation—will root freely.

Tulips and Hyacinths—if the bulbs of these have not yet been taken out of the ground, this work should be attended to without delay, and place the roots in an airy shady situation. Dig up the ground where they grew, and plant thereon such free flowering annuals as *Phlox Drummondii*, *Petunias*, *Nemophilas*, *Balsams*, or the various kinds of *Portulacas*.

Hollyhocks—of the finer double flowering kinds should be propagated by cuttings this month, preferring a light sandy soil in a shady situation where-in to place them.

Mignonette—when a succession of this fragrant annual is desired during the winter, a sowing in pots ought to be made in the early part of the month, and another about the 25th, placing the pots in a cool frame.

Chinese Primrose—sow the seed in pots without delay—if plants are wanted to flower during the winter, use a light rich sandy soil for this purpose.

Tree Peonies—now is a good time to graft these: use the tubers of the herbaceous kinds to graft upon.

Orange and Lemon trees—it is not too late to bud these—if the stocks are in a thrifty growing condition.

Chinese and Japan Lilies—ought to be taken up and replanted this month; incorporate with the earth in which you plant a liberal supply of thoroughly decomposed manure and sand.

Heliotropes—put in cuttings, these if attended to, will form fine plants for winter bloom.

Greenhouse Plants—those arranged out in groups on gravel or ashes, ought to be frequently lifted and examined, so as to prevent the roots from passing into the ground beneath. Towards the end of the month, begin to shift into larger pots, so that all may be well rooted before the housing season.—Those who desire to have fine specimens of the rarer kinds, may shift such plants at any season, taking care to do so before the roots become matted within the pots.

Seeds—do not neglect to collect seeds of annual and perennial plants so soon as they are ripe, placing them in a cool airy situation to dry, when they should be cleaned of all chaff or extraneous matter, and put in papers correctly labelled with the name and year when raised.

W. D. BRACKENRIDGE,
Rosebank Nursery, Germantown, Balt. Co., Md.

LIME KILNS.

To the Editors of the American Farmer:

GENTLEMEN:—Will you or some of your correspondents please favor me with instructions as to the best and most economical mode of burning lime with wood. Having an abundance of wood and good limestone, I wish to burn some 4000 bushels per annum, and to be at as little expense for kiln, &c., as possible. I do not object to expending \$75 to \$100 for a good kiln, but I do not care to erect one until I can be assured it will answer a good purpose. I know of many kilns built in this valley at very considerable expense, which proved on trial almost entirely worthless,—and it is to avoid such a failure that I now seek for information.

I hope to see in the pages of the "Farmer," something on the subject, and from those who have experience in the matter.

A CONSTANT READER.

Frederick County, Md., July 21, 1857.

There are upon many farms in Maryland, lime-kilns cheaply and efficiently constructed—will some of our friends give us a suitable description of them, in answer to our correspondent.—Ed.

THE TRIAL OF REAPERS AND MOWERS AT SYRACUSE, N. Y., by the U. S. Agricultural Society, took place during the week commencing with the 13th of July. There were 19 Mowing and 14 Reaping Machines on the ground for trial. There was a large attendance of visitors from different sections of the country. The awards will not be made till the meeting of the Society at the Annual Exhibition to be held at Louisville, Ky., in September next. We have not heard to which machines the prizes will be likely to be awarded—when the official report is made, we will publish it in the Farmer.

P. S.—A correspondent of the Baltimore American, writing from Syracuse, says:—

"The Reaper (Hussey's) from Baltimore excited universal interest and admiration on account of its size, (cutting ten feet) and the quality of the work; the gavels were laid perfectly even and ready to bind. From present indications I think Mr. Hussey may safely depend upon the first prize for the best Reaper. It must be a source of gratification, alike to the inventor and the people of Maryland, to receive such a mark of distinction for inventive genius."

The same writer speaks of Haynes' Broadcast Seed Sower:

"It is a light vehicle, drawn by one horse, and sows a space forty feet wide with the utmost regularity; indeed so perfect is this machine, that a quantity of land can be accurately measured by the amount of seed which it distributes. The cost of the whole apparatus is but *sixty dollars*. This machine will be in operation to-day in presence of the judges, as it has been before, after which the proprietor proposes to take it to your city."

Other accounts speak of the favorable impression made by Ketchum's and also Manny's Machines—but we suppose it is all guess work, and we must wait for the official report.

The farmers and Stock raisers in the neighborhood of Upperville, Loudon Co. have an association called the "Upperville Union Club for the improvement of horses." As its name implies, it is devoted especially to the improvement of horses, and holds an annual exhibition in June. First and second premiums to the amount of several hundred dollars are distributed for yearlings, two year and three year old colts, of riding stock, quick draft and heavy draft horses. The following list of awards at the exhibition in June, was kindly furnished at our request, by Mr. R. H. Dulany, the President of the club.

RIDING STOCK—FIRST CLASS—YEARLINGS.

1st Premium to Jesse Richards, for his Tom Colt,	20
2d premium to T. F. Carter, for his Tom Colt,	5

SECOND CLASS—TWO YEAR OLD.

1st Premium, H. G. Dulany, for his Messenger Filly,	20
2d Premium, John P. Dulany, for his do.	5

THIRD CLASS—THREE YEAR OLD.

1st Premium, Hugh Rodgers, for his Messenger Filly,	20
2d Premium, Robert Carter, for his Messenger colt,	5

QUICK DRAFT—1st CLASS—YEARLINGS.

1st Premium, Robert Carter, Messenger Filly,	20
2d Premium, J. T. Smith,	5

SECOND CLASS—TWO YEARS OLD.

1st Premium, Saml. Ashby, Welby Carter, Messenger Colt,	20
2d Premium, do.	5

THIRD CLASS—THREE YEAR OLD.

1st Premium, H. McKinster, Messenger Colt,	20
2d Premium, Richard Brierly, Messenger Colt,	5

HEAVY DRAFT—1st CLASS—YEARLINGS.

1st and 2d Premiums—No Premiums awarded, the Judges thinking the Colts exhibited not entitled to them.	
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SECOND CLASS—TWO YEAR OLD.

1st Premium, John M. Harrison,	20
2d Premium, Alexander Grayson,	5

THIRD CLASS—THREE YEAR OLD.

1st Premium, R. H. Dulany, Cobham Colt,	20
2d Premium, Isaac Harrison, Cobham Filly,	5

The officers for the present year are R. H. Dulany, President, Jesse Richards, Vice President, and H. A. Hall, Secretary and Treasurer.

These neighborhood associations are found very advantageous, wherever they have been adopted, and maintained with any constancy, and we cannot too strongly commend them to more general adoption. Whether devoted to some special branch of improvement as in this case, or to agricultural improvement generally as in that of the Old Farmer's Club of Talbot Co., they are worthy examples, which we hope to see extensively followed.

INCREASE IN ONE SEASON.—It is stated by Busingault that a beet seed, weighing but the fraction of a grain, has produced a beet in one season weighing one hundred and sixty-two thousand grains, or twenty-eight pounds.

AMERICAN FARMER.

Baltimore, August 1, 1857.

TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—13 copies for \$10—30 copies for \$20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, \$1—1 square per annum, \$10—larger advertisements in proportion—for a page, \$100 per annum; a single insertion, \$15, and \$12 50 for each subsequent insertion, not exceeding five. Address,

S. SANDS & WORTHINGTON,

Publishers of the "American Farmer,"

At the State Agricultural Society's Rooms, 128 Baltimore-st.
Over the "American Office," 5th door from North-st.

THE NEXT SHOW OF THE MARYLAND STATE AGRICULTURAL SOCIETY.

We published in our last, the List of Premiums and Judges, Rules and Regulations, &c., for the next Show of our State Society, to commence on the 20th October, and to last 4 days. The Premiums, as before remarked, are on a more extended scale, than has ever before been presented by our Society, or we believe by any other in this country, if we except the National Society—and are such as are calculated to attract to our Show a large number of the best animals in this and the neighboring States, and we have reasonable grounds to hope, from the newly increased facilities of communication with distant sections of our country, to see the introduction upon our grounds, not only the fine stock of Virginia, Pennsylvania, Delaware and Maryland, as heretofore, but also from New York and the East, and Ohio, Kentucky and the other Western States. The contest is open to all, and a cordial welcome will be given to competitors and visitors from every quarter of the Union. The central position of our city, the hospitality of our people, the intimate connections now made with the most distant points, North, East, West and South, the liberal and tempting awards offered to the victors in the civic games, are all calculated to induce the belief, that our this Fall's Exhibition will bring to our city a larger concourse of visitors than has ever before been congregated here upon any other except the most extraordinary occasions.

We hope, therefore, that those who have fine stock will avail of the opportunity presented to exhibit it on the occasion. In most of the approved breeds of cattle, our own State stands foremost, as was fully shown at the National Show in 1856, at Philadelphia, but this year they may have to encounter some of the celebrated Western cattle, the Northern and Southern Horses and Sheep, and the Swine of the East, West and Middle States.

One feature in the rules we are particularly pleased with, and it is worthy of note, that it has been inaugurated under the administration of a Bachelor

President, and in behalf of the ladies, of whom we freely acknowledge we ever have been and always expect to be, the most devoted admirers, we congratulate him on the change. We allude to the 4th rule, by which it will be seen that any lady, whether of a member's family or not, will be entitled to exhibit articles of her own handiwork, free from any charge therefor, and will be entitled to a ticket of admission during the Exhibition. This rule will no doubt be found of decided advantage to the Society, in securing a more extended display in the Household Department, and in inducing a larger number of the fair sex to visit our Show Grounds, not only from our own city, but from this and other States. The amount of Premiums for this department, in our opinion, should also have been extended in the same ratio with the others, and we propose,—in case the Executive Committee may deem it inconsistent with their views of economy to increase the amount, in consideration of the large advance already made upon the former list,—to raise a purse for the purpose, to be placed at the disposal of the Judges. Those who feel disposed to second the movement, let them back us in our suggestion.

SOUTHERN WHEAT.

We are gratified to learn, the advance that is taking place in the culture of wheat in the far South. The crops raised in Georgia, Tennessee and South and North Carolina, will be greater by far this year than has ever been produced, and of the finest quality. A large portion of this wheat finds an outlet in the ports of Savannah and Charleston, and although some of it is sent North, there is a good market for it in Spain, there having been exported from Charleston alone during the past year upwards of 60,000 bbls. flour, which is said to equal that raised in that country. We rejoice to see this evidence of prosperity in the South—it is a movement in the right direction, and if our brethren would follow it up, they would soon show to the world their independence for all the necessities and blessings of life which are placed within their reach, only requiring them to stretch forth their hands to secure them to themselves and posterity.

The Valley Agricultural Society, of Va., will hold its 2d Annual Exhibition at Winchester, on 13th to 16th October next. We have received the list of premiums, &c., which are upon a most liberal scale; and we are pleased to learn from the Marshal, Wm. A. Jackson, Esq., that the first exhibition was a very successful one, in every respect; the receipts being sufficient not only to pay for the improvements made for the accommodation of the Show, and the premiums, &c., but left a surplus on hand. We wish the Society all success in its laudable efforts.

PERUVIAN GUANO TRADE.

The last advices from Peru, inform us that Vivanco still holds out, but that the government troops had nearly surrounded him, and his efforts will soon be crushed. The Chincha Islands are about being placed under the control of Castilla, the President of the Republic, and the protectorate of the British and French, is considered as having reference to the interests of their bond-holders, and to secure the latter from loss in case of future outbreaks, which are continually being made. If our minister there had been properly alive to the interests of so large and influential a body of our people as those interested in this trade, we would have had some arrangement made with Vivanco's government, by which our trade would have been placed on a different footing than that now anticipated by the upsetting of his power—for he has been defeated evidently for the want of funds to pay his troops and crews, though he had decidedly the vantage ground in the contest, having the entire command of the sea, and of the largest portion of the territory, Castilla having but little more than the capital, Lima, if we understand the matter aright.

In the ports of Chili, the Peruvian consuls endeavored to have the cargoes sold under Vivanco's contract, and delivered there, confiscated, but without effect, the Courts having dismissed the case. The same attempt will be made here, we learn, upon the cargoes shortly expected to arrive in Baltimore, with what better success than has resulted in the same procedure in Chili, we are yet to see.

"It is said that some respectable firms in Chili, offended by the terms in which the attempted claims against them were couched, intend to sue the Consul before a criminal court in order to obtain satisfaction."

A correspondent of the *Panama Herald* writes from Lima, under date of June 16, as follows:

A petition from some of our leading men has been presented to Gen. Castilla and received by him with great favor, having for its object the directed sale of guano in Callao: The following is the body of the project:—

That depots for guano be established in Callao, and that all foreign vessels be supplied therefrom, paying for it in cash on delivery, the guano to be sold by weight; and that after a sufficient number of vessels have been obtained, to be under the Peruvian flag, no foreign vessel to be allowed to load at the islands. The government to load the vessels at so much per ton for its delivery on the moles or alongside the vessel purchasing. Should this project succeed, it will be one of the greatest benefits ever conferred on the country. In place of the government only receiving \$15 per ton for the guano, it will get \$25 per ton clear, say \$5 per ton for digging and freighting to Callao, selling it for \$30 per ton, and at the same time giving to a large number of vessels and men employment, and keeping the money in the country. As yet the matter is only on the first step.

A treaty has just been concluded in Lima,

having for its object the protection of the Chincha Islands, Lobos and others, by an armed force of the English and French for the term of ten years, so that they have actual possession of them, but the Peruvian government has the entire control and disposal of the guano as heretofore; other nations are entitled to enter into the protection of the Islands.

P. S.—Since the above was written, the barque *Huntingdon* has arrived, with a cargo under the Vivanco contract, consigned to a house in this city. We made an offer to the consignees to purchase the cargo, but before the arrival of the vessel the Peruvian authorities here had her attached, and she arrived in charge of the U. S. Marshal for the District of Maryland, and was taken possession of by the Peruvian agents. The question will now be tested in a Court of Law, and we will then see whether our Courts will view it in a more favorable light to the monopolists, than those of Chili appear to have done. We expect the government of Washington will give this case its special attention, as important maritime questions are to be decided, which may involve our government not only with Peru, but with Chili, whose citizens have a deep interest in most of the guano sold during the administration of Vivanco in Peru.

THE CROPS AND THE NEWSPAPERS.

The manner in which the condition of the growing crops are reported in the newspapers of the day, has got to be an evil (not to say a nuisance) which we hardly hope to see abated. Whatever the cause may be of the very common perversion of the real state of the case, the fact is too palpable to escape the notice of those most interested—the producers themselves. We do not undertake to explain it, nor do we charge any wilful or designed intention to mislead. We only note the fact.

We have seen our city papers quoted in remote parts of the country weeks ago, in evidence of the prospect of a very superior crop of wheat in Maryland; while they were quoting like accounts from the city papers of other States to the same purpose; and their paragraphs have been bandied about, and they have adopted each the authority of the other, until the case is clearly made out and proved.

And now, to-day, the 14th of July, when many a Maryland farmer is sweating under a torrid sun to save the remains of a crop, fly-eaten, and fallen and tangled as if a herd of swine had ranged in it, or blighted by a mildew hardly before known to us, or blackened with rust like a mantle of mourning; every pleasant knight of the quill, taking his ease in his quiet office

"Neat, trimly dressed
Fresh as a bridegroom"

Regales us with cool paragraphs of a "glorious harvest almost everywhere," "much better than was expected."

These gentlemen dream; but only the fat roast beef of the day before, at fifteen cents a pound, affects their fancy; the lean kine that troubled Pharaoh's rest, disturbs not their slumbers, nor are admitted into the programme they prepare for the public amusement.

But if we give over our city friends to their fanciful reveries, we have a right to expect better things from the editors of country papers. Living in the county towns, where almost every day they have the opportunity of conversing with well-judging farmers, a resonable share of care and judgment in gathering information, would enable them to make most reliable and valuable reports of the crops of their respective counties. Many of them do so, and realize the important duty they owe to the community. But some of their accounts we are constrained to say do not exhibit the same care, and seem to be rather chance paragraphs suggested by a conversation with some one person, than the result of a systematic attempt to gather correct intelligence. We judge so from the remarkable discrepancy we frequently find between these published paragraphs and the private intelligence we receive of the most reliable character, and of the same date.

Sometimes the character of these announcements are apparent on their face. Without meaning to be invidious, the following which we clipped from the Baltimore "Sun" in the early part of May, seems to be of this sort:—"Corn-planting.—The Hagerstown (Md.) Chronicle says, an unusually large quantity of corn has been planted in that county."

"Unusually large crops planted" of one sort, and "unusually large breadths sown" of another sort, are stereotyped phrases used by bears on 'change, and friendly correspondents who write gratuitous items of news for city papers, to aid the general purpose of magnifying the crop, and diminishing the price. But it should be borne in mind, that these are modes of expression which originated in the West where there are yearly large accessions of new land, and that they do not ordinarily apply in old States like Maryland.—They are used here usually only by paragraphists who are too little familiar with cropping to remark the impossibility of sowing every fall an "unusually" large crop of wheat, and planting every spring an "unusually" large crop of corn. Our cotemporary at Hagerstown understands this, and it is undoubtedly quite possible that his statement is strictly correct as to fact. The farmers of Washington county may have had some reason especially moving them, to plant unusually large crops of corn. But it is so improbable in the nature of things, that in the absence of explanation, we think the "Chronicle" has fallen into an unaccountable error.

Every man who knows any thing of farming operations, knows that planting an "unusually" large crop of any one thing, always interferes seriously with the farm plans, and disarranges the settled system of operations for years. While we find, therefore, occasionally, some individual changing his plans with a view to improvement, prudent men rarely allow their arrangements to be interfered with but for some very special inducement. When a foreign war is on hand, and a probability of a very large demand from abroad, they strain a point to enlarge their crop of wheat. When tobacco is so high as during the past spring, they are willing to devote a portion of their corn land to that crop. But it is to be remembered that a hundred hogsheads of tobacco is made in the place of 700 barrels of corn. Yet while we hear often of increased crops of one sort, who ever hears of diminished crops of that for which it was substituted?

At the time the farmers of Washington county were preparing their lands for corn, that grain was bringing the very moderate price of sixty cents per bushel. Now what crop did these gentlemen find so unprofitable, that they concluded to an extent worthy of notice in the public prints, to abandon it for the sake of growing corn more extensively? We do not see that they have sown an "unusually" small breadth of wheat last fall, it is not therefore the wheat crop. Have they grown tobacco heretofore, and disgusted with the price of fifteen cents per pound, and an acreable product of \$120 to \$150, concluded to make instead, an "unusual" crop of corn with an acreable yield of \$25 or \$30? Or while potatoes are selling at \$1.20 cents a bushel, have they determined to plant no more potatoes? Or because beef brings only \$10 the hundred, have they broken up their grass lands? For ourselves, nothing short of an imminent Irish famine would induce us to enlarge a corn crop. There is scarcely one of our cultivated crops, which, as a mere selling crop, and independent of the value of the offal, offers so little inducement to cultivation.

As we said before, we have commented on this item from the Hagerstown Chronicle, not for the purpose of distinguishing it from others, but as one of many; and for the sake of calling the attention of our cotemporaries of the counties more directly to the importance of a due attention to this subject. The producer and the consumer of farm products are alike interested in having a true report of the condition of the crops. The speculator alone who preys upon all parties alike, is interested in perverting the truth. He labors to this end systematically, and constantly and without scruple, and nothing helps his purpose more than the reports of country papers which favor his views. They are supposed to be disinterested, and to have an opportunity of judging

for their locality. The rural correspondents of city papers who reconnoitre the country at railroad speed make much less impression. It is very well understood that when they take excursions they are determined to enjoy themselves, and the rate at which they travel enables them very readily to "skip" the unpleasant parts of the scenery; not to mention the difficulty with which these gentlemen discern between wheat and oats.

THE TRIAL OF REAPERS AND MOWERS AT CHESTERTOWN.

The Report of the Judges who presided over the trial of Reapers, Mowers, &c., appointed by the Executive Committee of the Maryland State Agricultural Society, will be found upon another page. It bears evidence on its face, of the exact and careful manner in which the Committee performed their arduous and responsible duties, and little need be added to its statements, to satisfy the public curiosity as to this trial.

The place of trial as is known, was the farm of the Hon. Judge Chambers, in the neighborhood of Chestertown. The most suitable arrangements were made by the President of the Society, Mr. R. McHenry, for the convenient transportation from the Western Shore of all who were interested as participants or spectators. Our Eastern Shore friends met us with characteristic hospitality and care for our accommodation, and the acknowledgments of all are especially due to Judge Chambers, upon whom, necessarily, the chief burden of the whole affair fell, not only for his abounding hospitality, but for the cheerful assiduity with which he fulfilled the arduous duty of preparing for and superintending the trial. Though not an "old man," as he emphatically said, yet even at the youthful age of "three score and ten," men do not often tax themselves voluntarily with duties involving so much labour, and interference with their own necessary affairs.

Reaching the field of operations, we found there, besides the visitors from the Western Shore, a goodly company of the farmers of the neighboring counties, with some from Delaware, including the well known Delaware farmer, Major John Jones, Vice President of the United States Society. To Mr. Edmund Law Rogers, Chairman of the Committee of three to whom was entrusted the preparation of the Official Report, his associate Judges are greatly indebted for the care with which that document has been made so complete, and for the industry with which he made upon the field, the ample notes, and otherwise collected the various items of information necessary to construct the very valuable tabular statement, wherein the dimensions, weight, cost, &c. of each machine are given. They had the good fortune likewise to be able to add to their number Mr. Chas. L. Pettigrew and Mr. B. Johnson Barbour, extensive farmers, the former of North

Carolina, the latter of Virginia, who had visited the grounds for the gratification of their own curiosity, and who cheerfully aided the Committee in their labours.

The arrangements all being made, the machines got in operation about ten o'clock, and worked with little interruption, till a late hour of the day. Few accidents of any sort occurred, and none of a serious nature, to interfere with the trial. By a sort of fatality which seems to attend the Hussey Machine on such occasions, it was the first to start, and the ground being extremely wet with the recent rains, a portion of the field into which it was driven, was so soft that the horses stalled, and its work stopped, until it could be dragged out and a new team applied. When Mr. Ringgold, a gentleman of the immediate neighborhood, hitched on his fine team, and mounted one of the horses himself, it went through in dashing style, and the work was done to admiration. The Hussey Machine with Self-Raker was not entered, owing to some deficiency in the finishing of the one intended for trial. The Ray Machine failed to enter into competition as a Mower, not being able to reach the ground in time, and the Hiser and Mowbly machine, from an unlucky accident, was not able to enter either as a Reaper or Mower. With these exceptions, the trial was as full and fair as in the nature of things it could be. The timing of the several Machines was attempted, but owing to the wetness of a portion of the grounds previously laid off, the allotments were made so unequal that it was impossible to make an accurate comparison in this respect; nor was it, we think, of material consequence.

Of the numerous machines tried, we do not design to speak particularly. On a review of the field, it could not be said that an indifferent machine was exhibited. The cutting of all was done well. Some exceeded others in durability of construction, while these may have had some advantage in lightness of draught; there were some differences in the arrangement for the support of the Raker, by which his work was done with more or less ease and regularity; some for lifting and lowering the cutters with facility, and various other points of convenience and advantage presented by the several competitors.

The admirable manner in which the work was done both in mowing and reaping by the Manny Machine with Woods' improvement, could scarcely be surpassed; and the award of the Judges was fully justified. Yet to our eye, the combined Reaper and Mower of Ketchum exhibited by Sinclair & Co. was very little indeed excelled by it, and the Judges by voluntarily giving this Machine likewise a premium of fifty dollars, indicated their opinion of its merits. And as regards the simple reapers, while the Judges were obliged to give judgment in favor of the machine of R. L. Allen, as

doing its work perfectly, and combining in an admirable degree, lightness of draught with strength of workmanship and completeness in all its parts, yet we doubt if the Hussey Machine was not in very close competition with it even in their opinion, and whether a jury of farmers who would feel at liberty to disregard other points than the best style of doing the work and capability of endurance under ordinary management, and on rough or smooth ground, (or rather whose judgment should lead them to give especial regard to these points,) would not have given it the pre-eminence.

Between the only two Self-Raking Machines, while the Atkins' Automaton excited the admiration of all by its beautiful ingenuity, the Dorsey Machine had the advantage with scarcely a question, in less weight, lightness of draft, simplicity in the working of the raking attachment, and the more perfect manner in which the raking was done.

Many with Johnson's improvement claims and is fairly entitled to the highest award as a Mower, yet Ball's and Ketchums, Allen's and others, were scarcely surpassed, and several which failed comparatively for some reason or other in the trial, are well known, in ordinary practice and day after day in the field, to do all that can be required of them.

In review of the whole field, and a candid consideration of all the circumstances which came under our notice, while we do the amplest justice to the fair, impartial, patient and intelligent test of the Committee of Judges, and claim for the victors the full benefit of their award, the trial was in our humble opinion more a triumph for all, than for any one or two Machines. It showed that in the chief requirements of a good Machine, they were all, we think without exception, good; and that the points of superiority, valuable as they are, are nevertheless in comparison secondary qualities, or primary qualities in only a moderate degree of excellence above those of their competitors.

One Machine we think claims our especial notice as a novelty, in its extraordinary amount of work, and its peculiar method of delivery. This was Mr. Hussey's ten foot cutter. It walked the field to the surprise and astonishment of beholders; taking down a ten foot swath at a clip, and laying it off in a manner unrivalled by anything on the ground, for evenness and regularity, and by a method both novel and peculiar. While its amount of work doubled that of the Machines generally, its draught exceeded the lightest, less than sixty per cent; the lowest of them showing more than five hundred pounds by the test of the dynamometer, while the draught of this was only eight hundred. It was worked with ease by four good horses. The method of delivery was by an arrangement which enabled the man who takes the place of the raker, by the sud-

den pulling of a rod to tilt the platform. The wheat is laid off in beautiful order, and the platform readjusted without the least interference with, or disarrangement of, the general operation of the Machine. Whether this method of delivery will be found to answer the purpose, on a longer trial, we cannot say. Mr. H. will exercise his ingenuity further probably, by making it a self-working delivery. The merit of the Machine impressed the Judges so favorably, that though not entered for a premium, they made an award in its favour of fifty dollars, with unusual unanimity.

In conclusion, we can, we think, without offence to any fair and liberal mind, and as an act of simple justice, make the remark, that while Mr. Hussey is from all accounts one of the few men largely interested in these Machines, who has not made a large fortune, to him at least is the credit due for the genius which invented, and the patient diligence which brought first into successful use, one of the most valuable labor-saving implements of the day. And alongside of Obed Hussey, the inventor of the Reaper, let us place Owen Dorsey the inventor of the Self-Raking attachment, and let all Marylanders at least claim for them, the honour due to two of Maryland's most worthy citizens.

"HAYFIELDS."—THE PAST AND THE PRESENT.

We had recently the pleasure of a visit to "Hayfields," the residence of John Merryman, Jr. Esq., of Baltimore county, one of the most active and indefatigable members of our State Agricultural Society, and a large sharer of the premiums of our Annual Shows, and of those of the United States Society and the Pennsylvania Society of last year. Mr. M. is the worthy successor of the true farmer and estimable gentleman, Col. Nicholas M. Bosley, from whom he inherited the estate; and to whose energy, skill and judgment, "Hayfields," with its stately mansion and ample farm buildings, its teeming valleys and almost as fertile hills, is an enduring monument.

Some account of the condition of this farm, when Col. B. took possession of it, and the remarkable improvement under his management, we gather from statements made by him and several of his neighbors to the Committee of Judges, who awarded him in 1824 the premium of the State Agr. Society for the best cultivated farm, and published at the time in the *American Farmer*. He commenced operations in the year 1812, at which time "the place was overrun with briars; the fields full of gullies; the whole farm remarkably stony; the fences so much out of repair, they might comparatively be called none at all"; such was the statement to the Committee of Mr. Abraham H. Price. Judge Nesbit said: "The fences were good for nothing; the fields sedgy,

stony and washed in large gullies. A considerable part of what was Nailer's farm, had been for a long time abandoned by Nailer as useless and not worth cultivation, I mean particularly that very high hill, that now looks so flourishing and fertile. There were no buildings on the farm worth any thing, and they have all been long since removed as nuisances, except one small log hut." The great improvements which in twelve years entitled such a farm to the premium of the State Society, were made, we are further told by Judge N. in his statement to the Committee, by "vigorous exertion and patient industry, with very little expenditure of money." "The expenditure of money, for the great objects obtained, is smaller than in any other case I have ever known." The Committee in their report say: "The perseverance and good management of Col. Bosley have effectually overcome all difficulties, and our eyes were greeted, on an inspection, with the view of a farm combining the advantages of permanent improvements, judicious arrangements, and a neatness of culture so pleasing to the eye."

In the course of the twelve years, he had hauled a distance of eight miles and put up 60,000 fence rails, and had spread upon the land, more than 21,000 bushels of lime. His method of improvement was by a course of thorough cultivation, to get rid of gullies, the briars and other filth, and thus prepare the land for grass seeds, for "Hay-fields" did not then produce hay enough to feed the farm stock. "Being compelled to buy hay," says Col. B., "it was an object of great importance that I should set immediately some portion of my land in grass." Every thing that could be gathered in the way of manure from the stables, the cattle pens, and composts, was applied to a portion of land in sufficient quantity to bring it into condition at once to produce a crop of grass. Here was something to start upon—a part of the farm however small, made fertile, and ready henceforth to furnish means of improvement to other parts, which in turn gave their help to the general improvement. Lime was applied at the rate of fifty bushels to the acre. It was put at first upon the naked land, after having been worked in corn. After a few years trial, he found much greater benefit by applying it in his preparation for the corn crop on the inverted sod. Mr. Merryman's experience, let us say by the way, leads him to prefer decidedly the application to the grass land, two or three seasons before it is to be ploughed down, and this opinion is corroborated by that of Mr. Edward Stabler. "Afterwards," said Col. B., "I found on an application of one hundred bushels of lime to the acre, the effects were much greater, and it has since been my constant habit to apply that quantity." We note this statement particularly, because it is at variance with the common opinion upon the subject now; smaller

applications frequently repeated being thought the better practice. Mr. M. Tilghman Goldsborough of Talbot, has related to us some remarkable facts sustaining the judgment of Col. Bosley on this point, and would add to other favors of the same sort, by communicating for the Farmer the results of his observation and experience.

Col. Bosley's course of cultivation was to work first year in corn; second year, plough two or three times during the season, for the sake of cleansing the land; applying the best portions of his manure to this land in the spring, and the corn stalks in the fall, after lying through the season in the yard; the fall wheat was sown with timothy and clover seed.

In 1824, the crop of hay fit for market was one hundred and forty-five tons; two hundred and sixty bushels of wheat; twelve hundred bushels of rye; three hundred bushels of oats, and three hundred bushels of corn.

Besides the improvement of the land, Col. B. had before his death furnished it with suitable and convenient buildings for every purpose, and of the most substantial character. Barns, shedding for cattle, stables, wagon sheds, carriage houses, ample quarters for servants, overseer's house, and the substantial, well built, roomy mansion house, fit for a prince to live in, without any attempt at show. So much for the past of Hayfields.

For the present, it is apparent enough to the practised eye in the thriving crops, the good fencing, the improved stock, and many other signs of judicious and systematic management, that so far from there being any depreciation or falling off, the work of improvement is going on still under the hand of the present proprietor. We did not get from Mr. Merryman exact statistics of his crops, but have reason to think they exceed considerably those of Col. Bosley. His system of cultivation has diminished his crop of hay, but very much increased the wheat crop—the former being now about a hundred and ten tons, and the latter some eighteen hundred bushels. Instead of sowing timothy with the small grain following his corn crop, he sows clover seeds only, and makes the following year a clover fallow for wheat, and upon this sows timothy and clover seeds. This plan necessarily diminishes the land devoted to hay, and has been adopted, we presume, to meet the high market price of wheat for some years past. The crop of wheat this season has suffered very seriously, in common with that of others, but the grass fields are most luxuriant.

Mr. M. as is known to those who frequent our cattle shows, has a superior stock of cattle—Ayrshires and various grades. He is the first stock raiser in the State, we believe, who has introduced both a male and female of the Hereford breed of cattle, well known in England, and prized by many above all other breeds for beef and working stock.

We had not an opportunity of inspecting his stock with the exception of ten or twelve very promising yearling heifers, but their quality is known.

Leaving the fields with their substantial products, we find an admirably enclosed garden, filled with the finest vegetables and choice garden fruits; to which is joined recently a spacious green house with a good supply of tender plants. The old road is changed for an easier and more graceful approach through the well shorn lawn, ornamented with handsome shrubbery and tasteful flower beds and well gravelled walks, overshadowed sufficiently by native oaks.

In making these notes of the past and the present at Hayfields, of the laborious and substantial and the more refined and elegant improvements, which have raised it from a barren waste to its present high condition, it will not be invidious in conclusion to note, the crowning grace of all, in which may justly be claimed a pre-eminence for the present over the past; we mean "the daughters like the polished corners of the temple," and the sons which "grow up like the young plants." In these our friend has a heritage richer than of fields and fruits and flowers; and in the care of such treasures a nobler husbandry than of flocks and herds.

ANOTHER ARBITRARY ACT OF THE PERUVIAN MONOPOLISTS.

We noticed the fact, some months ago, that purchasers of Peruvian Guano from the Agency in this city were required to give bond, with a penalty, not to sell to manipulators. This act, we believe, could in a Court of Justice, be severely punished as a combination or conspiracy against the legitimate and licensed business of some of our citizens. Since the attempted enforcement of the edict, however, the principle has been still further extended, and it is required we learn, under bond and penalty, that no purchaser of guano from the Agency here, shall sell to any one out of the State, or to any one who will send it out of Maryland! The first mentioned outrage, we thought could scarcely be paralleled, but this out-Herod's Herod! It is truly strange, that in this enlightened day, when all nations are striving to free themselves as far as possible, of every shackle upon the freedom of commerce, that a petty foreign government, through its minions on our own soil, should have it in their power to cut such fantastic tricks, apparently in mere wantonness. Comment upon such an outrage is needless—for it is only a piece with the course which has been pursued by these parties for years. What the object expected to be gained, can only be conjectured. The supply in consequence of the interruption of the trade in Peru, will probably be small, and the opportunity is thus chosen to force the trade from its legitimate channel, to gratify a malignant disposition—or, it may be, that that sore evil to the monopolists, our Inspection laws, prevents them selling their inferior guanos at as good a price as that which is brought to our market and stamped—

The standard of our State, is, for best quality Peruvian, marked A. 15 to 18 per cent. of ammonia and its elements—2d quality, marked B. 12½ to 15 per cent.—3d do. do. C. 10. to 12½—and 4th D. 7 to 10 per cent. Now if the guano sold at the North does not reach our standard, the public will see the importance to the monopolists of selling in other ports where there is no inspection, and no security against frauds, rather than in Baltimore, where it must be inspected, and where there is a heavy penalty for its adulteration, when branded. Let purchasers be on the alert. A gentleman recently informed us, that a friend of his in New York, had sold a cargo of Mexican guano to a dealer, who, he thought, if there was an honest one in New York, was the man—a short time afterwards, he in return had occasion to buy a lot of Peruvian from the same party, which was delivered and about to be used, when upon examination, he was satisfied that it was not pure Peruvian, and taxed the seller with having sold him an adulterated article; when it was obliged to be confessed, that the identical Mexican, that he had recently sold to the dealer, and of a most inferior quality at that, having cost but \$12 a ton, had been metamorphosed into a first quality Peruvian, by an admixture, and sold at 50 to \$55 per short ton.

We believe the facts as stated, can be relied on—we however have what we deem good authority for our allusion to them

☞ Notwithstanding the above edict, sales are made here as heretofore, no questions being asked of purchasers by the traders.

ADULTERATED GUANO.—The N. Y. American Agriculturist says:—

"There is a great deal of stuff sold for Peruvian which is not genuine. The smell or appearance is no guide in purchasing. It is just now a common practice, among the unscrupulous dealers, to buy the genuine, and mix it with poorer guanos, or other material, and sell the whole in "government bags" as unadulterated No. 1."

OUR FLORAL DEPARTMENT.—It will be seen that this department of our Journal, which is esteemed of much interest to the fairer portion of its readers, is placed in charge of Mr. W. D. Brackenridge, florist, &c., at Govanstown, near this city, who has kindly consented at our solicitation, to furnish a monthly memorandum for the *American Farmer*. We have a high appreciation of the qualifications of Mr. B., as a practical and scientific florist, pomologist and horticulturist, and are gratified to learn that since the establishment of his Nursery in our vicinity, he has received the most ample encouragement—there is no finer field of operations in the country, than that he has chosen, for the exercise of his talents and profession, and he will no doubt receive a due reward.

☞ Mr. Silas W. Conn, of Baltimore Co., has sold his four year old stallion, VERNONT, Sr., sired by T. T. NELSON's VERNONT, to Mr. S. Caraway, of Montgomery, Alabama, for one thousand dollars. This is another evidence of the advantages of breeding choice stock.

THE GREAT WEST.

We promised in our last, that we would, in a future number, make some reference from our notes, to the agricultural characteristics of the great West, to which we had recently paid a hasty visit. It is not to be expected, that hurried as we were from one point to another, at a rate of travel ranging from 300 to 520 miles a day, any thing more than a general view of our subject could be given; or many data upon which our remarks could be founded obtained from our own resources.

After leaving the Baltimore and Ohio Railroad, at its intersection with the N. W. Va. R. Road, at Grafton, 279 miles from Baltimore, we passed through as wild and romantic country as the eye of man could desire to look upon. In comparison with other portions of the territory through which we travelled, the foliage of the valleys and the mountains appeared to us to be of a richer hue—the hills and mountains covered, to their very summits, with an apparently rich natural grass, and the numerous streams directly adjacent, induced the belief, that this whole country, hitherto locked from the sight of man, and inhabited only by the wildest squatters, could in a few years be made a source of supply in the rearing of cattle and sheep, sufficient for the whole country east of the Alleghanies. The fields under cultivation in the valleys, though not numerous, yet appeared more luxuriant, with both wheat and grass, than in any other district through which we passed—the wheat uncommonly fine. This range of territory, now opened and exposed, by the railroad, we think presents a better opportunity for those desirous of engaging in the rearing of cattle for market, than any which attracted our attention West of it—and we have no doubt, it will in time, as it becomes better known, be appropriated to that purpose.

From Parkersburg by the Marietta and Cincinnati Railroad, it took us 100 miles and till night, to reach Chillicothe. The appearance of the country, was generally pretty much like that of our State and of Virginia. This vicinity is celebrated for its fine cattle, and many public spirited breeders and importers of stock reside near Chillicothe. Lands of the same quality as in Maryland and Virginia, cost here prices equal to ours—and so far as a hasty glance could permit us to judge, they appeared no better than ours for any agricultural purpose. On the morning of the 3d day, we started for Cincinnati by the Marietta and Cincinnati Railroad, and reached that city at about 1 o'clock in the afternoon, a distance of 96 miles. There we spent the remainder of the day, and enjoyed the hospitalities of its citizens, as we had the evening before, of those of Chillicothe.

The next morning we started for St. Louis, by the Ohio and Mississippi Railroad, and arrived there late at night, having travelled during the day about 340 miles. We were received with the utmost demonstrations of kindness by the citizens, who had

made every preparation for the accommodation of the thousands invited by them to partake of the festivities attendant on the celebration, on the following day.

There was nothing peculiarly inviting in the range of country from Cincinnati to St. Louis, except those portions about midway, embraced in the prairies, and which, after we left St. Louis on Saturday, occupied so large a portion of our route. The lands, other than the prairie, are worth from \$5 to \$20 per acre, and are such as may be had in many sections of the old States, for a less amount. They are very sparsely settled, there being but a few huts, here and there, and still less on the broad prairies. As we neared St. Louis, the settlements became more numerous, and the evidences of good farming were pleasing to the eye. The prairies, of which we shall speak presently, were of deep interest.

Friday, the 5th day after leaving home, was taken up with the grand procession, jollification and speech making, and it is but justice to the people of St. Louis to say, that we doubt if there has ever been a better managed affair in this country. Every thing was done to show the cordial welcome with which they greeted their visitors—and their praise was in the mouth of every guest. The place designated for the grand *fête* at St. Louis, was the Show Grounds of the Mechanics' and Agricultural Association, about 4 to 5 miles from the heart of the city, and embracing about 50 acres, well enclosed. The cost of the land alone, was \$50,000—and thousands, besides, have been expended in enclosing and improving the grounds for the annual exhibitions of the Society. The next of these takes place on the 28th September, and continues one week. In the centre of the grounds, has been erected an amphitheatre, after the pattern of those of ancient Greece for the Olympic games, and the whole arrangement displays a taste and liberality which would have done credit to the oldest and richest State in the Union. The whole cost of these grounds has been borne by the citizens of St. Louis, and was taken in stock, upon a plan somewhat similar to that of our Maryland State Society's Grounds, only upon a much larger scale. And here we may remark that as the borders of our own city are stretching out to our Grounds, and it will be necessary for our Society to be looking elsewhere for accommodations, very soon, we hope those who may have its interests in charge, will visit St. Louis for a pattern for the construction of appurtenances to the new site—for we doubt whether its superior is to be found even among the show grounds of Europe, under the patronage of Royalty. The President of the Association, is Richard Barrett, Esq., to whom, we learn, the principal credit is due, for the accomplishment of a work so noble. The St. Louis Republican gives the following description of these grounds, which will present some idea of their extent and beauty, and of the public spirit of the people of that thriving city:

"The city has nothing in the world to do with the purchase and no concern in the Association, except to be grateful for such a beautiful improvement in its vicinity. The ground is held in trust for the citizens of St. Louis, who are stockholders, and constitute the Association, and whose public spirit prompted them, with small confidence in the profit of the investment, to subscribe liberally to the stock.

"The amphitheatre, which is one of the grandest in the world, is three hundred and fifty feet in diameter, and the centre arena, two hundred and fifty. The cost of the amphitheatre is near \$7,000—the exact figure we do not now recollect. This amphitheatre will seat comfortably twelve thousand people.—Each promenade will hold twelve thousand, so that thirty-six thousand people may be sheltered under the roof of this magnificent structure.

"The Directors are still prosecuting their improvements and preparations, on a large scale, with reference to the approaching Fair, to open on the 28th of September next,* and continue six days. The plans have been drawn and adopted, we believe, for a very elegant and costly Art Hall, designed for the display of such specimens of the fine arts, as may be committed to the Directors for exhibition. When finished, it will be one of the most beautiful structures on the ground, and the centre of all that is pleasing to lovers of the beautiful.

"Large as the premiums were offered last year, the Directors this year have made a large advance—one hundred per cent. on some things. We have recently mentioned their offer of five hundred dollars for the best steam engine. They also offer three hundred dollars for the best reaper and mower, three hundred for the best horse, three hundred for the best bull, and thus on through the list. The aggregate sum appropriated to premiums approaches sixteen thousand dollars."

On Saturday, we took the cars for Chicago, and passed over the immense tracts of prairie land on the route. It is a wonderful sight, which those who have been on the ocean, can form some conception of, when it is recollect that whilst standing on the deck of the ship, there is nought but the broad expanse of the green ocean below, and the bright blue sky above, as far as the eye can reach; so here was to be seen, from the platform of the cars, but one vast field of prairie land, covered with the natural pale green grass peculiar to the soil, with the serene sky above, and not a vestige of a tree, shrub or stream to break the monotony of the view. It is indeed a wonderful, grand display of nature, and is certainly worthy a trip to behold.—The soil of which we obtained a sample, and which Dr. Stewart has kindly promised to analyze, is a rich, black mellow mould, from 6 to 20 in. in depth, and yields from 15 to 30 bushels per acre. But it is said, ground that has been in cultivation, or mown from 12 to 15 years, produces better crops than the new land, because the top soil, which is principally composed of decayed grass, and the ashes deposited by annual burnings, is very loose and open. On the newly cultivated prairies, spring wheat, of which there was much sown this spring, as well as

[*The Baltimore & Ohio R. R. Co. have determined to issue round trip tickets to this Show; and we expect a similar arrangement from St. Louis to Baltimore, will be made to the Show of the Md. State Society, at Baltimore, in October.—Ed. Am. Far.]

oats, are liable to grow too rank. If sown late, after 1st April, too much straw is grown, which liable to make the wheat blast, smut, &c. The largest portion of Illinois, decidedly the greatest farming State of the West, is composed of prairie land, most of which is very level, though occasionally it is somewhat rolling. On the level land, the soil is apt to become too wet for the profitable cultivation of small grain, without some special preparation, which however it is said can be overcome by manuring, and deep and thorough plowing. Indian corn may be considered the staple production of the prairies.

Although it is attempted to make light of the matter, nevertheless the miasma of these prairies must be very deleterious to health; added to which the scarcity of water, induces the people to draw surface water, from hollows made for the purpose catching it from the rains. Water it is said can generally be had by digging wells to the average depth 25 feet, but such a thing as a *spring* of water, is hardly known. How they manage to raise cattle, in a healthy state under such circumstances, is a mystery to us. It is said that the Indians avoided these prairies when they were lords of the land, on account of the scarcity of wood and water.—The prairie grass sustains the cattle during the summer, but there is as much necessity for shelter for them through the winter, as there is in the more northern States of our country. The cold, piercing winds of the prairies, which have so full a sweep, being hard for cattle to bear—extra feed, and for a long winter, must be supplied them, as the prairie grass gives out very early, and in the spring, most of the cattle are very poor. The scarcity of timber allows but a very limited opportunity of erecting sheds, stabling, &c.

It is generally recommended in Illinois, to cultivate the Osage Orange for hedging, as the expense of division fences renders it difficult for much enclosure to be made. When the neighborhood is more densely settled, it will require much amiability of temper on the part of the husbandmen and their servants (if they can have any) to prevent outbreaks, such as annoyed the Patriarch Abraham and his kinsman Lot, when they were similarly situated in the Land of Canaan.

The winter wheat, especially in the northern part of the State, is very apt to freeze out, as the winds have such a full sweep, upon the light, porous soil about the roots. Rich as the land is, 12 to 25, in some sections as high as 30 bushels per acre, of ordinary culture, is produced—of spring wheat, one-fourth to one-third less—of Indian corn, 40 to 70 bushels, and of potatoes, 100 to 200 bushels—though it is believed much larger yields can be made by manuring, and good culture. A very great difficulty to be encountered here, is the want of labor. The numerous railroads, public works, buildings, &c. paying much higher wages than can be afforded by the farmer, he is obliged to rely on his own arms for the accomplishment of his work—and when it is considered that every thing is to be done, he who settles in this country has the glorious prospect before him, of a life of toil and deprivation, for himself and helpmate, in order that those who may come after them, may enjoy the fruits thereof—and as the Preacher hath said, "Who knoweth whether he shall be a wise man or a fool?" We hold to the doctrine that parents should lay up for their children, but is there not a limitation to the decree—is it required of us that we should forego all the comforts and delicacies and blessings of life,

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that our offspring should enjoy that for which they have not toiled, and may not know how to appreciate aright? If we cast our eyes around us, how often do we find that riches, accumulated by the sweat of the brow of parents, who toiled to the end of their career, depriving themselves of the comforts, nay, very often, the necessities of life, in their worship of the Mammon God, in order to lay up riches for their children, and who had scarcely been laid in the sepulchre, ere the contest in law and the feud in the family, have proved that the wealth so accumulated was a curse to those for whom it had been heaped up!

In looking round upon these vast prairies, in passing through the wild country in other sections of our travel—beholding the half-civilized denizens of these plains and forests, scattered here and there in their solitary huts, far from the opportunities of enjoying Christian fellowship, or the blessings of education for their youth—in short, deprived of everything calculated to render this life desirable, we could not but wonder, if it were possible that any cultivators of the soil could be found in old Maryland or Virginia, who would voluntarily leave the homes of their youth, surrounded with their beautiful streams, their noble rivers and bays, their farms studded with the majestic trees of the forest, their fine springs gushing forth from every hill—with their churches and their schools, and colleges, on the right hand and on the left—with a soil which can be made nearly as productive, with the *same energy and industry* that is requisite to secure success in the West. We say, we wonder if any one could be induced to pull up his stakes from this delightful land, to plant them even in these fertile prairies, much less in the still farther off wilds beyond the Mississippi, where the war-whoop of the Savage is still heard, and the scalping knife yet in use. These reflections crossed our minds in riding through this western region; and when we compared our own beautiful country with it, under the most favorable circumstances, taking into consideration the distance from market for their productions, the large slice even out of the poor price they could obtain for them, necessary to be paid for their carriage—the distance from their supplies for any of the necessities of life, beyond their mere bread and meat—without a cooling draught from the pellucid stream—we could not but ejaculate our thanksgiving, and exclaim with the Psalmist, “the lines are fallen unto us in pleasant places—yea, we have a goodly heritage”—If our voice could reach a single soul who contemplated leaving the Middle States for the Western regions, we would beseech him to pause before taking the final step—to examine the subject in all its bearings—to compare the advantages they possess, *in every respect*, with those which they could possibly attain unto by a removal to these new countries, and we doubt not that, as rational men, they will determine to forego their intention; let them set to work, with only one-half the industry and energy which they would have to use in the West, in the proper cultivation of their paternal fields; rear their children to habits of industry, to sobriety and virtue; train them up in the paths in which they would wish them to walk, with the full assurance that by so doing, and by setting before the eyes of their young minds, a proper example, in word and deed, they will secure the blessing that is promised to the obedient—a life of usefulness will be thus secured, for themselves and their posterity here, and finally the great reward which is in store for the faithful

We will, hereafter, continue the subject, and in the mean time, present the views of one of the editors Patriot, who was with the excursionists. Noticing our remarks in the last No. of the Farmer, he says, under the caption of “Farming in the West”—

“The senior editor of the American Farmer was one of the party who composed the recent great railroad excursion to the West. He was, as might have been expected, a keen observer of the agricultural characteristics of the twenty-six hundred miles of country through which he passed, and he avers that he has returned to his home with the full conviction, that, for agricultural purposes, there is no necessity for any man in Maryland or Virginia to change his location—that with only half the energy and industry which it will be necessary for him to employ in the West, he can do far better in the Middle and Southern States. We heard similar opinions expressed by other observant gentlemen during the same trip. It is true that the fertility of the virgin soil of the West offers at first glance very tempting advantages to the hardy and industrious settlers, but there are serious drawbacks to be taken into consideration by those who desire to emigrate. It is manifest in the first place that speculators have bought up a large proportion of the lands, which they hold at prices much higher than come within the means of the ordinary class of agricultural emigrants. But assuming that they have the means to purchase a farm, they must yet be content to pass many years of severe labor before they can surround themselves with the home comforts to which they have been accustomed in the older States. There is the land to clear and fence, a house and outbuildings to erect, roads to cut, domestics and farm hands to hire at extravagant wages, and difficult to procure in many instances at almost any sum.—Luxuriant crops are of little use to the possessor, if he cannot command sufficiency of force to house them safely; while their transportation to a remote market takes largely from their value. The comfort of a home everywhere depends mainly upon the assistance that can be obtained in conducting the rougher details of household affairs—in the educational facilities afforded the younger members of the family, and in the reasonable proximity of places of public worship.

“If those who migrate to the newer States and territories would but apply the same energy they are obliged to use there to the renovation of the ill farmed lands of the Atlantic border, and would consent to wear homespun, to live in log houses, and, eschewing all luxurious appliances, be satisfied to live upon the products of the homestead, they could acquire a competence with more ease in settled neighborhoods than on the fertile and sparsely populated prairies of the great West. They would moreover be enabled to enjoy that social intercourse which is essential to the well being of every class of persons, and living under fixed laws, among a people accustomed to respect private rights, would be far more secure in person and property. It is also unquestionable that improved land in the older States more rapidly appreciates in price than in the new, by reason of the greater density of population, and the greater value of fertile soils within easy distance of a good market. We believe that no one need go West with a view to make money by farming, who is willing to apply the same amount of labor and to live in the same style on the seaboard.”

"THE CROPS."

Under this caption, one of our city Journals,—usually very reliable upon all matters connected with commerce and business generally, but which appears to be greatly at fault in regard to the wheat crop this year,—about the middle of July, announced in the most glowing terms, the cheerful prospects for agriculture, and that the wheat especially was "in a most flourishing condition." We should not perhaps, have taken note of these remarks in the article alluded to, as they are daily reiterated in general terms by our city papers, had not the following in the same article attracted our attention:—"In Maryland, a fair average crop will be the probable result—from the middle States accounts are more variable, but it is reasonable to expect at least a fair average yield." The conclusion will have necessarily been arrived at, by every intelligent farmer in Maryland, that if the information of the writer in relation to the crop of wheat in other States, is not more correct than that shown in regard to our own, it is very evident but little reliance can be placed in the statements made upon this subject. To show how far off from the true state of the case, the writer is, in his report, we copy from the same paper of the same week, and from the country papers of Maryland, the following items, embracing most of the wheat counties in the State:

Harvest in Harford and Cecil.—The Belair American of yesterday says:

"The farmers in Cecil are in the midst of their wheat harvest, and the previous reports of a bad crop are fully confirmed. There are a few good fields in the county, but the yield is very light.

In Harford county the farmers generally have commenced harvesting. We learn that the wheat will not yield more than one-half the usual quantity produced in this county. Hay, oats and potatoes, from present appearance, indicate a large crop."

"The wheat crop in Washington county, says the Boonsboro' Odd Fellow, is fully as good, if not better, than that of last year."

The Torch Light, at Hagerstown in same county, thinks the crop will be equal to last year's, but says:—"there are almost as many opinions entertained and expressed as to the probable yield, as there are farmers in the county, but none put it down as low as half a crop."

The Baltimore County Advocate says that there will be about a half a crop of wheat in the county.

Crops in St. Mary's.—The Leonardtown Beacon says that the statement of a correspondent of the Washington States that the wheat crop in St. Mary's county is very fine, is untrue. The oat crop, however, is very good."

Harvest.—"Our farmers (in Kent Co.,) are now busy harvesting—the crop is a very light one."—[The same may be said of Queen Anne's.]

Harvest.—"The farmers in Cecil are in the midst of their wheat harvest, and the previous reports of a bad crop are fully confirmed. There are a few good fields in the county, but generally the yield is very light."

Harvest in Maryland.—Harvest is progressing in Anne Arundel county, but the Annapolis Republican can reports the yield of wheat as very poor. In Caroline county, the Denton Journal says there will be only a two-thirds average yield, but the grain is unusually fine. The oat crop will be very heavy. The wheat crop in Frederick county, according to the Herald, will not be an average one, but much better than expected. The Rockville Sentinel uses the same language in relation to the crop in Montgomery county. The Elkhorn paper say there will not be half a crop in Cecil county."

Our farmers are in the midst of their harvest, and speak encouragingly of their prospect for wheat. We have heard the yield, in this county, confidently estimated at two-thirds of an average crop.—*Cambridge (Md.) Herald.*

Harvest in Maryland.—The wheat harvest in this county is nearly completed, and we are gratified to learn that the crop promises an abundant yield. The cultivation this year, is small, however, owing to the failure of last year's crop.—*Worcester Shield.*

Writers from several sections of Baltimore Co., in the Advocate, concur in the opinion that not much more than the seed will be realized in the county. The Editors of the Farmer have had personal opportunities of knowing, that the wheat crop in Baltimore county, will little more than repay the seed; such is the calculation of the most intelligent farmers.

In the price current of the same paper of the same week, in the face of the announcement of the "flourishing condition" of the crops in every section of the country, we find it stated that a decided improvement in the tone of the flour market had taken place during the week, and an advance of 50 cts. per bbl. was the result—and in the same weekly report of grain, wheat is quoted at a higher figure than for 18 months past, [recollect, July and August are generally considered the dullest seasons of the year] old wheat having brought 202 a 205 cts. for choice lots—the new wheat offered in the market was mostly white, and much of it was out of condition—it was however all sold at 185 to 200 cts. (There is much danger of farmers sending their wheat to market in too damp a state at this season; much of the new sent in during the past month, was in this state, and sold at a much reduced rate in consequence.) So much for Maryland.

The Delaware papers confirm the previous accounts of the result of the wheat crop in that State.

During the past two weeks, (says the Dover Reporter) the farmers have been engaged in cutting their wheat. In Kent county, the yield will be about one-half what an average season would produce. We can hear of no one instance where a full crop has been raised. There are some who, long since, have plowed their wheat in and planted corn; others again who will not cut; some who have cut merely for the straw; a large number who will get back just what was sown; half the farmers in the county will make three-fifths of a crop; a few who count on four-fifths of a crop; but none an extra yield.

In Virginia, in many quarters the wheat is a

good yield, but in numerous others, it will be light.

A correspondent in whom the utmost reliance can be placed, in Hanover Co., Va., writes us (July 3d):—

"Our wheat crops are very uneven; some parts of our fields are very fine and others contiguous quite inferior. I feel confident that the crops of Eastern Virginia, will not average two-thirds of a crop. There is only *here* and *there* a really fine crop. The tobacco crop is not yet fully planted, the high prices having induced many planters to add largely to their area of cultivation. But, notwithstanding the large amount of money disseminated through the tobacco growing regions from the sale of the crop of last year, still it is remarkable, that money never appeared to be scarcer or more in demand than at the present time."

Another correspondent, in Brunswick, says, (July 13) that it was quite seasonable then, the crops looked well, though some two weeks later than usual—he thinks the wheat will be an average crop in that section; the tobacco crop was planted, but it depends entirely on the season for the crop to mature, as it is unusually late—the chinch bug had got possession of the corn, and was more numerous than he had ever seen it, and how it would end he could not conjecture.

Another correspondent in Northampton Co., Va., (July 11) says, "the crops are backward, but look promising for a fair yield. We are now (11 July) just beginning to cut our oats, which is unusually late. The wheat crop is good."

A correspondent in Fluvanna Co., says "there is fully an average crop here, in many instances they were never finer. Another in Albemarle, gives same account in that county, and in the Southern States where he had been travelling, but that throughout the whole route he had travelled every species of vegetation is three to four weeks later than usual."

A correspondent in Pittsylvania Co., says, "the tobacco crop has all been planted, but very late and stands badly; a full crop cannot be made. Corn very backward, but has been cultivated very well. Oats look well. Wheat very good, both in quantity and quality. The chinch bug never were more numerous; they attacked the wheat too late to injure it materially, but unless we have a great deal of rain, I fear that they will ruin the corn crop."

The Rust.—We regret to learn that many fields of late wheat in this and adjoining counties, heretofore very promising, have within a few days past been attacked by rust, and in some cases almost wholly destroyed. There is also much green wheat, which it is now believed will never mature or yield a good grain.—*Winchester Virginian*, of July 22d.

In North Carolina, Georgia and Tennessee, the wheat crop has been very fine—in the latter State we are informed by a correspondent that the wheat in East Tennessee will yield as much, or more per acre, than for a number of years. Wheat, however, in the Southern States, is but a secondary crop, tho' we are glad to find more attention is being paid to its cultivation—but the entire exhaustion of last year's corn crop will require nearly all their wheat to supply the domestic demand.

So far as the West is concerned, upon which the main reliance is placed for wheat, in connection with the Middle States, we repeat, that the most reliable accounts we have, induce the belief that the crop will be short, and that the demand for it, in the new States and Territories, will leave but little to be brought Eastward. The wheat was winter killed to an extent not before experienced for a number of years—this fact is universally borne testimony to, by the press at the West, and by all travellers who have paid attention to the matter—large breadths of land have been sown in spring wheat, but the season has been unfavorable to it, and this variety is principally relied on for home consumption, and cannot be considered a commercial article. The very intelligent editor of the Albany, N. Y., *Country Gentleman*, who has been on an extended tour through the West for the benefit of his health, and has just returned home, in his July No., gives the following brief, but comprehensive view of the whole matter, which can be relied on with all confidence, he having taken pains, and having time, minutely to examine the subject. He says:—

"From New York to Iowa, the season, with great uniformity, has been cold and wet, and all crops are in a very backward state—say from two to three weeks behind what they usually are on the first of July. Most of the Indian corn on the Prairies, which is generally two to four feet high at the close of June, is this year not more than three to six inches, and has a yellow, sickly and most unpromising appearance, and unless the months of July and August should prove unusually favorable, the crop cannot fail to be a short one, not only in the prairie districts, but throughout the whole extent of country through which we passed; and under the most favorable circumstances, even, we cannot anticipate a full crop. The cold, wet weather has not proved so injurious to spring wheat, barley and oats, which look tolerably well, though they should have attained their present growth by the middle of June. We saw very little winter wheat in all the districts through which we travelled west of Buffalo, it having given place in northern Illinois, Iowa, and Wisconsin, to spring wheat, owing to its being so generally winter-killed in the districts mentioned. In Western New York, so far as we could judge from what we saw and heard, the winter wheat, except upon well drained lands, will be light."

In Pennsylvania, we have every reason to expect an average crop of wheat; the season, however, there, as everywhere else, is very backward, and we cannot determine as yet, how far the ravages of the rust may have been avoided.

We might multiply evidence, going to prove that the crop of the country will be under an average of wheat—though the accounts are very contradictory in many quarters. The oat crop will probably be an unusually large one. The corn and tobacco, which have had great difficulties to contend with, may be very good, if the season continues, as at present, favorable to these crops. The hay crop, also, we think, will be unusually large, as will be the fruit, generally.

OFFICIAL REPORT
OF THE
TRIAL OF REAPERS, MOWERS, &c.
Under the auspices of the Maryland State Agricultural Society.

TO THE PRESIDENT AND EXECUTIVE COMMITTEE
OF THE MD. STATE AGRICULTURAL SOCIETY.

Gentlemen:—Having been duly appointed Judges to preside, and award the Premiums, at the trial of Reapers, Mowers, and other Harvesting Machines, and Implements, held near Chestertown, Kent County, Maryland, on the 7th and 8th days of July, 1857, the undersigned have performed their office, and now present for your consideration this, their Report:—

On the morning of the 7th of July, on the place where the Trial was to be held,—the farm of the Hon. E. F. Chambers, in Queen Anne's County, a short distance from Chestertown—we were called together by Ramsay McHenry, Esq., President of the Society. Here, was received, with much reluctance, the resignation of Judge Chambers, as Chairman and member of this body. He stated, that in supplying the wants of the numerous competitors, and others interested in the Trial, and in superintending the general arrangements for the occasion, his time and attention would be so much occupied, that he would be unable to give to each machine that observation necessary to a conscientious decision upon its merits. The Hon. James A. Pearce, was appointed his successor; and, at the request of the President, we proceeded to the performance of the difficult and delicate duty committed to our charge.

After consultation, this Committee decided upon a course of procedure, and were then furnished, by the proprietor, with a well-drawn plat of the field to be reaped, made under his own supervision, by the County Surveyor, after careful measurement and sub-division of the whole ground. This plat represented a parallelogram, nearly square, divided into twelve sections, alike in shape, each containing one acre, and numbered in succession. Upon proceeding to the field in question, we found it and the plat to exactly correspond, and that each section was plainly distinguishable and separated from its neighbour by a broad swath cut with the ordinary cradle. From these lines all the grain had been removed, and a perfectly clear passage was thus left to make the initial swath of each machine. The general surface of the ground was not far from level, sloping gently from a central plain to the boundaries upon the East, West, and North; on which sides were skirts of woods, whilst upon the South was a large pasture, and the base of operations. The heavy rains of several days previous, had rendered the soil of a small portion of the field too yielding, for the proper working of the teams, and this, it was found necessary to avoid.

The weather, though warm, was not unusually so for the season; and the influence of the heat was much diminished by the light intermitting breeze, that blew throughout this day.

The crop of wheat to be cut was not very heavy, but was in excellent condition for reaping; the grain well ripened and the straw stout and dry. This wheat had been carefully put in with the drill, and had headed well, without lodging.

The valuable assistance of Samuel Sands, Esq., Senior Editor of the American Farmer, having

been obtained as Secretary, and Mr. Goldsborough one of our number, consenting to act as Marshal to the Committee, the parties entitled were summoned to make entries of their machines, under the several classes in which they were to contend for the premiums. Whereupon, the following entries under the class of "Reapers and Mowers Combined," were made, viz:

1.—By R. Sinclair, Jr. & Co., of Baltimore Ketchum's Patent, made by Howard, of Buffalo.

2.—By Rogers & Boyer, of Philadelphia, their "Union" Machine, being an improvement on S. S. Allen's.

3.—By R. L. Allen, of New York, R. L. Allen's Patent 5 feet swath, and R. L. Allen's Patent, feet swath.

4.—By Thomas Norris, of Baltimore, Manny Patent, with Woods' Improvement.

5.—By Obed Hussey, of Baltimore, Hussey Patent, 5 feet swath.

6.—By Owen Dorsey, of Howard County, Dorsey's Patent Self Raker.

7.—By E. A. Greenough, of Baltimore, Wright Atkins' Self Raker.

8.—By W. & W. Armstrong, of Lewisville Chester County, Pa., Ketchum's Patent with Hull Improvement.

9.—By Wm. Johnson & Co., of Newark, Del. Manny's Patent with Johnson's Improvement.

10.—By Heiser & Mobley, of Hagerstown, Md. their own Machine.

11.—By B. F. Ray, of Baltimore, Ray's Patent

Of the machines above mentioned each was also entered for competition, as a Reaper simply, and as a Mower simply; but those entered by Messrs Dorsey and Greenough, were the sole contestants for the premium for the best Reaper with self-raking attachment. In addition to the above, O. Hussey, of Baltimore, entered for the premium for the best Reaper, his machine cutting a swath of 10 feet.

The additional entries for the premium for the best Mower, were,

1.—By O. Hussey, of Baltimore, his Mower, 5 inches swath.

2.—By Saxton & Raff, of Canton, Ohio,—Ball Ohio Mower.

All the entries having been made, it was determined that the first contest should be for the Premium for the best Reaper. The competitors were then required to draw lots for the different sections into which the field had been divided, and according to the numbers on the plat already mentioned. Each machine was then placed in position, upon its allotment, by the Marshal; and, that the attention of this Committee might not be distracted, it was requested to order but two machines to be in motion, at the same time, and not to allow the numerous spectators in attendance to trespass upon the space devoted to the trial.

The contest between the Reapers began, and was continued during the greater part of this day, and until an adjournment to partake of the very excellent and plentiful repast prepared for us and our other visitors, by our former presiding officer.

In the afternoon of this day, upon the same farm but in a field at some distance from that where the Reapers contended, the trial of Mowers was commenced. This field, much depressed in the centre, descended with quite rapid but unequal slopes toward the South; in which direction, ran several water-furrows across its entire length.

Adjoining, upon the North, were a large double-decked barn, of brick, and an extensive barn-yard; the latter much poached, and rugged with the trampling of many hoofs. From these premises the surface water consequent upon the then recent and heavy rains, aided by the flow from a small spring near by, in the field itself, had conveyed a very considerable amount of gritty substances, among a portion of the grass to be mowed.

The growth in this field was very miscellaneous—herbgrass—clover, white and red—fine lawn grass—timothy, and some dwarf sorrel; whilst, amid the whole, were seen, at irregular intervals, tall burdocks over-topped by yet taller weeds, and sundry stout seedlings of the yellow locust. Thus it will be perceived, that this arena presented many characteristics calculated severely to test the merits of the different machines.

The trial begun upon this afternoon, was continued with undiminished spirit and interest, until a late hour; after which, this Committee adjourned, to re-assemble for consultation and discussion, in the evening, at Chestertown.

On the morning of the 8th, we again convened upon the scenes of the contests of the previous day. The weather remained unchanged, and our labors were continued by a further trial of those Reapers, the merits of which we had not, previously, fully ascertained, and by bringing to a close the trial of Mowers.

Owing to some misapprehension of the instructions of the Marshal, on the evening of the 7th, Mr. Raff, the exhibitor of Ball's Ohio Mower, then removed that machine to a field adjoining Chestertown, supposing that, as had been at first intended, the trial of Mowers would be continued and concluded upon that spot. Upon returning to Chestertown, however, your Committee made a careful examination and trial of this machine,

upon the premises referred to, and in grass comparatively free from weeds, and other obstructions, but otherwise not, very materially, different from that in which its rivals had been tested.

The exhibitor of Mr. Hussey's machines had brought to the Trial of Reapers, a new Machine with self-raking attachment; but, owing to some derangement or mis-construction in one of its important parts, it was withdrawn from competition.

Your Committee much regret, that by some untoward accident, in landing their machine from a boat, and the injury it received in consequence, Messrs. Heiser and Mobley were unable to get their Reaper into a condition fit for trial; and that "Ray's Patent" could not be tried as a Mower, in consequence of failing to arrive upon the field in time, owing, it is believed, to some unavoidable delay.

In trying the Reapers, Mowers, and Combined Machines, they were subjected to every reasonable test, in grain or grass, that was suggested or occurred to your Committee. The teams were driven fast and slow,—with and without previously backing to give motion to the cutter,—halted suddenly—started from a dead halt—the machines passed over many varieties of surface—and in short, every effort was made to accomplish, thoroughly and impartially, the task allotted us.

Mr. David Brumbaugh, of Washington County, one of our number, assisted by Mr. Merryman, another member of this Committee, carefully tested the draught of the machines, with the Dynamometer. The results of his measurements, and the price, weight, dimensions of the most important parts of each machine, and other information respecting each, as fully and as accurately as, under the circumstances, they could be ascertained, are given in the following table:

TABLE.

NAME OF MACHINE.													
Price at place of Manufacture, Draught, Weight, Dimensions, &c., &c.	Wood's Mower.	Johnson's Mower.	Hussey's 5 ft. sw. with front wheels Hussey's 10 feet swath.	R. L. Allen's Patent.	*Ketcham's Patent.	Hull's Ketchum.	S. S. Allen's Improved.	Heiser & Mobley.	Dorsey's Self. Raker.	Atkins' Self. Raker.	Ray's Patent.	Hussey's Mower, 56 inch swath.	Ball's Ohio Mow. er, 2 master whs.
Combined Machine, Reaper, simply, Mower, simply,	\$140	\$133	\$130	\$130	\$130	\$135	\$150	\$200	\$130	\$175	\$125	\$100	\$121
Draught as per Dynamometer, Weight of Combined Machine, in lbs.	\$190	\$150											
515 650 527 810 551 612 508 642 502 596 551 512	850 1000 1058 690 900 850 900 1300 972 761 700												
Diameter of Driving Wheel, in inches,	30 33 36 38 33 32 48 36 33 36 31 36												
Face or Tread of Driving Wheel, in inches,	6 6 6 8 6 6 5 6 6 6 4 6												
Diameter of Spur pinion	4 4 4 5 5 5												
Diameter of crown gear	19 19												
Diameter of bevel wheel,	14 14 12 19												
do.	4 4 4 4 4 4												
Diameter of bevel pinion,	2 2 2 3 3 3												
Advance in one vibration,	3 3 3 3 3 3												
Length of vibration,	3 3 3 3 3 3												
Base of Cutter exposed,	4 4 3 4 4 4												
From base to apex of cutter,	2 2 3 3 3 3												
Whether tried with or without reel,	with with with with with with												
Width of Swath, in inches, Whether back or side delivery,	56 56 60 120 60 60 54 56 60 60 60 56 52	side back back back	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side	back side side side side

NOTE.—The diameter of the Driving Wheel, in Ketchum's Machine, when used as a Reaper or as a Mower, differs accordingly. For the first purpose it is provided with an outer rim, or movable tire of wood, fastened in segments, by bolts, to the cast iron wheel on which it runs when used as a Mower; whilst for the second this outer rim is removed. This removal will make a difference of twelve inches in the driving wheel under these different conditions. The first wheel, therefore, is as a 3 foot bevel on a bevel pinion shaft, working into a 4 1/2 inch pinion. The next bevel wheel is an 8 1/2 bevel, working on a bevel pinion shaft working into a bevel pinion on the crank shaft, and 5 inches in diameter.

Of Implements for gleaning Wheat fields and raking Hay, but two entries were made, viz :
1.—By R. Sinclair, Jr. & Co., of Baltimore, The Wire Spring-Tooth Gleaner.

2.—By J. Atlee, of Carroll County, Md.—Dulaney's Independent Rake.

Both these implements were tried upon the first day, and in the wheat field ; first separately, and then together ;—each implement being compelled to follow alternately, over the same area, in the path of its competitor.

Upon concluding the careful and laborious trial and examination of the various machines and implements mentioned in this report, we assembled in Chestertown, at the residence of our chairman ; and there, after the merits of each Machine and Implement had been canvassed, proceeded to make our awards, as follows :

For the best Reaper and Mower Combined,—to Manny's Patent with Woods' improvement, \$100.

For the best Reaper with Self-Raking attachment—to Owen Dorsey's Patent Self Raker, \$75.

For the best Reaper, to R. L. Allen's Patent, \$50.

For the best Mower,—to Manny's Patent, with Johnson's Improvement, \$50.

For the best Implement for gleaning Wheat fields and raking Hay,—to the Wire Spring-Tooth Gleaner, entered by Sinclair & Co. \$20.

In addition to the foregoing, the following Discretionary Premiums were awarded :

To Ketchum's Reaper and Mower Combined, made by Howard & Co., of Buffalo, N. Y., \$50.

To Hussey's Reaper, cutting a swath of 10 feet, \$50.

Several of the machines exhibited were of such nearly equal merit, both as Reapers and as Mowers, that it was with some difficulty the Judges could decide between them ; and particularly was this the case with the Mowers. In this latter class, it was observed, that among the most successful machines, were those using the Track Clearer,—a contrivance claimed to be the invention of Mr. Ketchum, and the exclusive property of the machine bearing his name.

For great strength and durability, Ketchum's and Hussey's Machines could not be surpassed. The former, as a Mower, was put to the severest tests—across, in, and parallel to ridges, and water furrows, and, in all, performed admirably in every description of grass. The latter, for the same use, seemed constructed to withstand the greatest possible amount of hard usage, with the least amount of repairs.

Bail's Ohio Mower, was much admired for several points of excellence ; particularly, for the slight side draught, the comfortable driver's seat, the flexibility of the cutter bar, the arrangement by which the machine was thrown out of gear by backing, and the precision of the cut ; but the Track-Clearer was inefficient and badly constructed, and the swath too narrow.

Safety to life and limb is always considered of such paramount importance, in the construction and operation of every machine, that, in this view, the Committee could not but object to the Raker's seat, on "Hull's Improvement on Ketchum's Reaper." The position and construction of this seat, they considered, a most serious defect in this otherwise very meritorious machine. Doubtless, the exercise of a little mechanical ingenuity, will enable the manufacturers to obviate this objection.

Ray's Reaper, appeared to the Committee to be deficient in the important requisite of durability, but its work was well done, though with a most startling amount of noisy rattle.

The machine exhibited by Messrs. Rogers and Boyer, of Philadelphia, performed well, and was considered a well contrived and reliable Reaper. The contrivance of the Pivot Rake attracted especial attention, as a valuable labour-saving device, and as relieving the Raker from much of the fatigue incident to the use of the fork, or of the rake as ordinarily employed. The positions assigned to the driver and raker, the mode of elevating and depressing the cutting apparatus, and that for throwing the machine out of gear, were particularly noticed, and commended.

This Committee considered Atkins' Self-Raker as entitled to very high commendation, and as one of the most ingenious machines that had ever come under their observation. The automaton raker, with a motion and extension of its parts, in manner closely resembling the action of the human arm, was, as is always the case wherever this contrivance is exhibited, the theme of undivided praise. Some disappointment was felt, however, at the rather slovenly way in which the gavels were laid by this machine, during the morning of the first day ; though its performance, afterwards, in this particular, gave more satisfaction. Complexity, seeming liability to get out of repair, want of durability and unusual weight, appeared to be the principal defects in this Reaper.

To Dorsey's Self-Raker, as being of less weight, of lighter draught, of less price, and performing its work better, the preference over its competitor was given. The long revolving arms performing alternately, the functions of reel and rake in combination,—rising with bold sweeps, and then dipping, with sudden rapidity to their work upon the platform, were beheld with astonishment at their novelty, and with admiration at the ingenuity of their successful contriver. To Atkins' Self-raker, however, it is due to say, that the minority in its favor was large.

R. L. Allen's Patent performed the task assigned it with uncommon celerity and ease, leaving a stubble cut so evenly and clean, as hardly to be equalled, and delivering the gavels in the neatest manner for the binders. The large but light driving wheel, of wood, the very accurate and superior manner in which all its parts were put together, and the unusually small amount of friction, gave to this machine great advantages, which, together with the personal superintendance of Mr. Allen, were of no slight assistance to its success.

To Manny's Combined Reaper and Mower, with Woods' Improvement, we have awarded the first Premium, because in our estimation this invention comprised the greatest number of excellencies required in a perfect machine in that class under which it competed for the premium ; and in this decision the Judges were, nearly, unanimous.

To Manny's Mower with Johnson's Improvement, which is, in many respects, very nearly the same machine as that last named, when used as a Mower simply ;—the Premium for the best Mower was awarded; because it performed the best work, was, in almost every respect, equal to any, and, in many particulars, superior to most of its rivals, and showed great perfection in cutting very fine, short and thin grass. Between this machine, however, and Ketchum's Patent, it was a considerable time before the Committee could decide.

Allusion has, already, been made to the great strength and durability of the machines exhibited by that early pioneer, in the invention, and manufacture of Reaping and Mowing machines, Mr. Obed Hussey—we may here add our admiration of the exceeding simplicity of their construction. This Committee were much, and most favourably, impressed with the excellence of that one of his machines to which they have awarded the discretionary premium. The great width of swath, the comparatively light draught, the regular and precise delivery of the gavels by means of the tilting apron in the rear, and the rapidity with which its work was performed, all combined to render this Reaper a favourite. The work of the other machines put in competition by Mr. Hussey, would, doubtless, have given more satisfaction, had a little more care been taken in their adjustment, previously to entering the lists; and had he made some preliminary essay of their powers in private. In this way, the inventor might have ascertained those deficiencies, which, though probably not inherent faults, were yet disclosed to the disadvantage of his machines, by their sudden and severe trial in public!

Ketchum's Machine, we have previously several times referred to, and have shown our high appreciation of its very great merits, by the award of a discretionary premium. As to the claim to the invention of the Track-clearer, as the exclusive appurtenance and property of this machine, when used as a Mower, it is possible, that had the Committee been competent to decide upon its justice, their opinions, in regard to this machine, might have been modified; but, as such decisions were beyond their province, their award has been made upon all the facts within their knowledge, at the time of trial.

The manifest superiority of the Wire Spring-Tooth Gleaner, over the implement placed in competition, allowed no hesitation in awarding the premium to the former.

The presence at this trial, as the guests of Judge Chambers, of the officers of the Kent County Agricultural Society, an organization now of thirty years existence, added no small interest to the strife, and enhanced the value of its triumphs. To those, who so liberally furnished teams for the occasion, the thanks of this Committee are given, and by the Society, are particularly due.

It was resolved to depute to three of our number, Messrs. Rogers, Merryman and Worthington, the duty of preparing this report, and that a copy of the same be furnished to the American Farmer, for publication, for the information of the members of the Society, and of those interested.

In concluding this report, we desire, as your Committee, and for ourselves individually, to express to the Hon. E. F. Chambers, our high appreciation of his successful endeavors to furnish to ourselves, and to those who competed for the premiums, every reasonable facility for the proper performance of our several parts; and, at the same time, to offer him our very cordial thanks for his friendly courtesies, and for many and most agreeable experiences of his bountiful hospitality.

All of which is respectfully submitted,

EDMUND LAW ROGERS, *Baltimore City.*

JOHN MERRYMAN, *Baltimore County.*

N. B. WORTHINGTON, *Baltimore City.*

JAMES A. PEARCE, *Kent County.*

JOHN BROWN, *Kent County.*

JAMES T. EARL, *Queen Anne's Co.*

B. JOHNSON BARBOUR, *Orange County, Va.*

CHARLES PETTIGREW, *Tyrrell Co., N. C.*
GEORGE W. HUGHES, *Anne Arundel Co.*
HENRY CARROLL, JR., *Baltimore County.*
DAVID BRUMBAUGH, *Washington County.*
MARTIN GOLDSBOROUGH, *Baltimore City.*

HEAVY FLEECES.—We had the gratification of witnessing, on Tuesday last, at Holkham, Dr. J. R. Woods' farm, the shearing of the finest flock of Cotswold sheep and Southdown crosses to be found in the whole State. At great expense and constant attention for many years, Dr. Woods has succeeded in such improvements of his sheep, as to secure from his prize bucks to his spring lambs, the finest flock we have ever seen, and we doubt not the very finest in the State. Dr. Woods finds a ready sale of his mutton at \$10 a piece, and was offered by Major Preston of Washington, at the last State Fair, \$25 round for the ewes which he had on exhibition. The fleeces from his Cotswold bucks, though as clean as it could be upon sheep, they having been upon grass sword, ranged from twelve to fifteen pounds each. The weathers of his flock did not fall short of these figures. With such weight and quality of wool as those shall yield, and then their high prices as mutton in market, sheep raising is not only a pleasant but a profitable business.—*Virginia Advocate.*

WHEAT DRILL, WITH GUANO ATTACHMENT.—In our pages for this month, will be found another communication upon this subject, from the pen of Dr. Woods, of Albemarle Co., Va., a gentleman who stands in the same position to the farmers and planters of Virginia, for his practical discrimination and scientific attainments in agricultural Machinery, as does M. Tilghman Goldsborough, Esq., whose very satisfactory paper upon the same topic, which appeared in our July number, to those of Maryland. Though received very late in the month, yet the importance of the subject to our readers, at this time, induces us, at considerable inconvenience, to present it in this month's Farmer.

Mr. Alexander S. Matthews, of Wythe county, recently sold to James Cloyd, of Pulaski, three cows, two heifers, and one calf, for \$750—an average of \$125 each. Also, one cow and calf to Dr. D. B. Sanders, of Wythe, for \$600. Those cows were, we suppose, of the short-horn breed, of which Col. M. is one of the most eminent breeders in his section of Virginia.

AGRICULTURAL COLLEGE.—The State of Michigan has established a College of Agriculture, on a farm of seven hundred fertile acres, near the city of Lansing, where the State capital is located.—Joseph R. Williams, late editor of the Toledo Blade, is President. It has an endowment of \$56,000, the proceeds of the Salt Spring lands originally given to Michigan Territory by the federal government. The legislature has appropriated \$20,000 per annum for two years to the support of the college. There are already accommodations for eighty students. No charge is now made for tuition, but each student is required to work three hours per day, for which he is paid.

POTATO CULTURE.

We published in a late No. some questions and answers on this subject, from Mr. Blew. We have received the following in addition, from that gentleman:-

Question 5. What variety of the Irish Potatoes do you think the best? Answer. All white flesh potatoes, by whatever name they may be called are good. Perhaps the best potatoes in the world, are the thin blue skin, white flesh Mexican on the Pacific coast, about the same latitude as Maryland. About the Golden Gate, they grow to great size and beauty, weighing from one to four lbs. each, and as large and uniform in shape as a basket of our finest canteloupes. A friend of mine who was there, bought fifty bushels of the natives.

They are raised in the valleys, and mature without rain: very heavy dews and cold spring water is all the moisture they get. I hope to get some of them this spring. I think they may be cultivated with success in Prince George's forest, on West River, and some places on the Eastern Shore. Ques. 6. Do you think that the white flesh potatoes are as hardy and reliable as the yellow flesh variety? Ans. Perhaps not, as the texture is finer and more delicate: a little too much heat or a little too much cold will affect them sooner than it will one of coarse, fibrous, waxy texture. Ques. 7. What causes potatoes to rot in the field before it is time to gather them? Ans. I do not know. Ques. 8. What causes them to rot in the cellar after they have been housed in good condition? Ans. In most cases I think they were dug too late in the fall—though not frozen, they were chilled. I have lost many by late digging. If we cannot put them all in the cellar before the 20th of October, we had better bury them on high dry ground, cover with straw six inches thick, and on that put earth fifteen inches thick.

NEW ADVERTISEMENTS.

We present a number of new advertisements in this month's Farmer, which should elicit attention, viz:

Among the manures offered, will be found by Allen & Needles, of Philadelphia, their Super-phosphates of Lime, Fish Manure, Guano, &c.

Rogers & Boyers, of Philadelphia, also offer their original Super-phosphates of Lime.

Lemmon & Brogden, Baltimore, 250 tons Mexican Guano at public auction—worthy attention of farmers and dealers.

W. Grange & Co., Baltimore, Ground Bone Dust, which they warrant as pure and unadulterated—and we have no hesitation in saying that, in the long run, the use of Bone Dust is the most permanent and cheapest article that farmers can use; the great difficulty has been to get a sufficient supply.

John Kettlewell, Baltimore, his Manipulated Guano, Nos. 1 and 2, the value of which, to our mind, cannot be doubted, and we hope it will be largely used this Fall.

Reess & Co., of Baltimore, also offer their Manipulated Guano, and the same remark just made is equally applicable to it.

Malcom & Co., Baltimore, Guanos of every description, &c.

J. J. & F. Turner, Baltimore, reiterate their appeal in behalf of De Burg's Super-phosphates. We have been shown a number of letters from

gentlemen who have used it during the last year, most of them declaring their belief as to its being equal or superior to Peruvian Guano.

Isaac Pullen, of Hightstown, N. J., offers fruit and ornamental trees, &c., from his well known Nursery.

W. B. and John E. Segar, offer a fine tract of land in Middlesex county, Va., particulars of which can be had on application to McConkey, Parr & Co., or Messrs. Segar.

W. A. Spence, jr. also offers a Farm in Westmoreland, on navigable water.

Geo. C. Gilmer, of Albemarle, Va. also offers valuable tracts of Land for sale, in that county, one of which will be offered at auction on 16th of September, if not sooner disposed of.

Pitkin & Bro. offer a Potato Digger, which they say can be had of the principal Agricultural Implement dealers.

S. Ault & Son, Baltimore, Garden Seeds of every description.

R. Sinclair & Co. offer Turnip Seed, new crop.

R. M'Henry, of Harford, Md., offers a number of Ayrshire Cattle, so much prized by many for dairy stock.

M. Goldsborough, Baltimore, also offers Ayrshire and other cattle, and Sheep and Swine.

W. O. Hickok, Harrisburg, Pa.—his Cider Mill, much approved of, and described in our last vol.

C. M. Saxton & Co. N. York, a new work on the Sugar Cane, illustrated, with latest experiments.

J. S. Suter & Son, Baltimore, can supply hard wood Lumber, at their Steam Turning and Sawing Works.

C. Warns, Elk Ridge, Chester Pigs, as usual.

A. Frost & Co., Rochester, N. Y., offer at their Genesee Valley Nurseries, a great variety of ornamental and fruit trees—and here we take this early opportunity to urge upon all our readers to be liberal this Fall in planting out orchards, and ornamental trees and shrubbery; they cannot imagine how much it will add to the value of their property.

S. and W. P. Trott, Fairfax county, Va., offer a great bargain of lands in that county; from the description given, it is worthy of attention to those wishing to remove to that section of Va.

C. F. Carson, Baltimore, agent for Bickford & Huffman's Grain and Guano Drill in Baltimore, gives the testimony of a number of the best farmers in Talbot Co.

Mrs. Sally Brown will offer at public sale, on 1st Sept. a large and valuable estate in Amelia and Dinwiddie counties, Va. to which the attention of speculators, or Northern men, wishing to realize fortunes in a few years, is called.

E. Whitman & Co., Baltimore, offer the Spring Tooth Wheat Rakes, also Fawkes' Premium Lime and Guano Spreader, Pennock's Drill; and is one of the Agents for the Manny Reaper and Mower, with Woods' attachment, which took the premium at Chestertown.

Thos. Norris, Baltimore, is Agent for Smith's Improved Smut Machine, highly recommended. He is also agent for Manny's Reaper and Mower.

N. E. Berry, Baltimore, offers Guano, Lime, Salt, Plaster, and Ground Bones,—also, Seed Wheat, &c.

J. M. Brockenbrough, offers a valuable Farm in Richmond, Va.—and Geo. S. Bandell, Baltimore, calls for information about Wyandotte Corn.

II.—The communication of Prof. Piggott, promised in our last, on the subject of Colombian Guano, was put in type, but has been unavoidably deferred till our next.

THE ADVANTAGES OF THE SOUTH.—We have not a shadow of a doubt, that if our Southern people would fully wake up, as they are now doing, in a measure, to the development of their resources, their position for wealth, prosperity and happiness, and all the elements necessary to render life desirable, is far superior to either of the other great divisions of our country. —Mr. Peabody, the eminent banker, whose visit to his native country has been attended with many marked evidences of his munificence and public spirit, has just returned from a tour through the Southern and Western States. The N. Y. Herald thus speaks of his return:—

This gentleman finds the United States in a condition of general prosperity of which he had no adequate conception; but as a whole, he considers the Southern States as occupying the most solid and permanent position of them all. The great staple of cotton makes the whole world forever tributary to them. This is something which at present they alone produce in such quantities as adequately to supply the looms of Europe, and our own country, and without which we may almost say the world would go naked. In the Northern States the industrial pursuits of men are liable to great commercial changes. The form and the character of the manufactured articles, the course of trade, the demand for shipping, and the price of flour, are all matters of frequent and dangerous fluctuation; but cotton, under the impulse of an increasing demand, and the cheapness of its machinery, formed novelties, is a basis on which its producers may solidly and unfearingly repose.

LEAKY ROOFS.—The editor of the Germantown Telegraph, had a tinned roof, nearly flat, which, he says, in defiance of carpenter, tinman and painter, persisted in leaking, from the day it was built, until last fall, when he applied a coat of the cement described below, which has thus far proved a perfect cure. He mixed the cement as thick as it could be applied with a paint brush:

"Five years ago we applied a cement composed of white lead paint, whiting, and dry white sand, to a small tin roof that leaked like a sieve; it soon became nearly as hard as stone, has never sealed off, and has kept the roof, since then, perfectly tight. It was put on about the consistency of thin putty."

The cement is excellent for filling up cracks in exposed parts of brick buildings, pointing up the base of chimneys where they project through the roofs of houses, stopping up seams in the roofs of buildings, closing cracks in cellar floors and walls, &c. White lead and sand, without the whiting, also make an excellent cement for seams and cracks. The *Scientific American* gives the following receipt for slaters' cement:

"Slaters' cement for stopping leaks around chimneys, is composed of linseed oil, whiting, ground glass, and some brick dust. It is a good cement for this purpose; also for closing the joints of stone steps to houses."

THE GROUND PEA.

The following is a short essay, which received the premium of the Georgia and Alabama Agricultural Society, some years ago, before which association it was read by John Dimond, Esq:—

The ground pea or pindar is a leguminous plant, which may be cultivated with considerable profit. The peas contain a large quantity of oil and are excellent for fattening qualities. The first thing necessary is of course to select a suitable soil. A hammock which is very rich and light will suit them best. It is well to commence in January and break the ground well with a scooter plow both ways. About the second week in March lay off the ground three and a half feet each way with a small scooter, drop the peas one in each hill, cover with a hoe and step on each to press the dirt close on the pea. The rows should be laid off very straight in order to plow them well. A sweep plow should be used to stir the ground in preference to any other, because it will run under the vines and not throw dirt over the ends of them. They should be plowed about the time that they have mostly come up; in about two weeks they should be gone over again crosswise, and again in two weeks more, and so continue until the third week in July. The hoe should follow every alternate ploughing, and they should be laid by free from grass. The digging of ground peas should commence about the last of October. A long hoe is requisite in order to dig them properly; with this the ground should be loosened well and dug under the centre to cut the root, jerk up with the hoe and take hold of the bunch and shake the dirt out, then turn the bunch over and let it remain three days to dry. They should not be left out in the rain, as it will turn them black. When sufficiently dry they may be hauled and stacked or housed; they may then be picked off at leisure. After the peas are picked off the tops are a valuable food for stock. A few words in relation to the different varieties. There are two, the large and the small. The large kind is preferable for harvesting. One hand can gather one third more in a day than he can of the small ones, and they are just as marketable, large and small ones always selling for the same price. I prefer the small variety for hogs. If the crop should be intended for fattening hogs, it will only be necessary to turn them into the field and let them dig for themselves.

BALTIMORE MARKETS—July 29.

It would seem that almost unprecedented efforts have been made this season, to depress the price of Breadstuffs, and circumstances have combined to accomplish that result, in some degree. The advices by late arrivals from Europe, represent the prospect for the growing crop, in Europe, as very fine, the weather being seasonable for the grain at the time; but the harvest was some distance off, and in a single day, or a spell of a few days, may change the whole face of the scene. The London Mark Lane Express, in its review for the month of June, notwithstanding this favorable state of the crops, says the corn trade has been somewhat brisk, and "wheat has advanced from 2s. to fully 3s. per qr. in that market, though the reverse is the state of things at Liverpool"—the latter is attributed to the dullness of trade in the manufacturing districts—"still," says the Express, "there is every reason to anticipate steady prices

for nearly all kinds of produce, and our reasons for this remark may be briefly explained." The reasons then given are, that by the advices from the U. S., "the stocks [of last year] in the hands of growers, are very little in excess of the wants of the population"—(a fact of which there can be no doubt)—and "that shipments to Europe will be very limited for some time"—and that "the Baltic and Black Sea ports do not show any large quantities of grain for export purposes"—the quantities of old grain still on hand in England, is equal to that of last year at same period, but deficient in quality—and that the "whole amount of foreign wheat in warehouse in London, was about 100,000 qrs., and 250,000 qrs. the total quantity in the United Kingdom." So much for the foreign view of the subject.

The present is the dull season of the year for grain, there being but little shipped now—the farmers have, as usual, hurried their wheat into market, but nearly all that was sent in this month has been in a damp estate, and consequently brought a reduced price. This caused somewhat of a panic, and as usual in such cases, from \$2.02 to \$2.05, at which prime parcels sold at about the middle of the month, and good to prime 185 to 200c. the prices have declined, and to-day are quoted at 175c. for choice lots of white, 160 a 165c. for good to prime, and 140 a 150c. for ord. to fair—small parcel of damp as low as 125c.; good to prime Red, 160 a 165c.; a lot, however, of 3,000 bushels old prime white, raised by James C. Johnston, Esq., of North Carolina, was sold by Messrs. J. Williams & Son for \$2 per bushel, showing that the quality and condition, in which the article is delivered at market, will command for it the high price obtained the middle of the month.

Corn, is in request and firm, but receipts light, white 88 a 90c., yellow 87c. Oats, 56 a 58 for new Md. and Va., 65 for old do., and 68 a 70c. for prime Pa. Rye 110 a 114 for Pa. Flour, Howard st. \$7.75, City Mills \$7.50 a 7.62, Ohio \$7.50. Corn Meal, \$3.75 per bbl. for country, and \$4.25 for city. Rye Flour \$4.50. Rice, 5½ a 5½c. for good to prime, and 5c. for common. Whiskey, city distilled 25, Pa. 28 a 28½, Ohio 30c. Sugars are rather declining, but a contest is going on between bulls and bears with it. Molasses, N. O. 68 a 70c. Hay, baled Timothy, \$18 a 22, loose 16 a 18 per ton. Straw, \$16 a 18 for Rye, and \$12 per ton for Wheat. Plaster, \$3 per ton for lump, \$1.37 per bbl. for ground. Tobacco, receipts small, and transactions are limited; the inquiry is more particularly for common kinds, which maintain their prices more firmly than those of better quality—we quote Md. brown leaf, as in quality \$9 a 10; inferior short seconds 7.50 a 8.50; brown leafy 10 a 11, and extra 11 a 15—bay tobacco, tips or tails 9 a 11; seconds 12 a 15; yellow spangled 30 a 32, and fine yellow 35 a 45—but little Ohio or Kentucky coming in. Wool, is improving and in demand, at 21 a 24c. for unwashed, 26 a 29 for pulled, 32 a 35 for tub washed, 32 a 35 for ½ blood fleece, 35 a 38 for ¼ do., 39 a 44c. for ½ do., 45 a 50c. for full blood, and 50 a 53 for extra Saxony.

Beef Cattle—the offerings this week show a decrease as compared with last week. There were 600 head offered, of which number 100 were driven off, and the balance taken up by Baltimore butchers, at prices ranging from \$4.50 to \$5.50 per 100 lbs. on the hoof, equal to \$9 a 11, and averaging about \$5.

Hogs—there were about 550 at market. Sales were made at prices ranging from \$9 a \$9.50 per 100 lbs. net.

Sheep—is in fair demand. Sales were made of from \$2.50 to \$4 per head.

Guano, per ton of 2,240 lbs. Peruvian, best \$62. Colombian \$40, and Mexican A A. \$23 a 25, and inferior brands, as in quality—African, \$35 per ton of 2000 lbs.

[Since the portion of our paper was put to press relative to the new edict of the Peruvian Agent in regard to selling to parties to go out of the State, we learn that the order is modified and to be construed to selling to *dealers* in other States, and not to consumers—the object being, we learn to make traders resident in other States, buy at New York, instead of Baltimore.—ED.]

PURE NO. 1. PERUVIAN GUANO OF DIRECT IMPORTATION.

WE are again prepared to supply *Farmers* and *Plowmen*, or their Agents with pure *Peruvian Guano* of direct Importation this season, full weight in new strong bags, and Baltimore Inspection.

The very superior character of the guano and the condition of the packages furnished by us in former seasons, as admitted by our friends, will be a sufficient guarantee to all future orders will receive our best attention. Our purchases are made by the cargo from the Agent of the Peruvian government, and our customers may consequently rely upon obtaining the genuine article, and of a very high per centage of ammonia.

We have also on hand a few tons of the genuine *African Guano*, equal to any compound of Peruvian and Mexican. Also Mexican Guano containing 65 per cent of Phosphate of Lime. *Colombian Guano*, *De Burg Super-Phosphates*, and all other kinds of fertilizers which we deem worthy of recommendation to the agriculturist.

P. MALCOM & CO.,
GRAIN AND GUANO WAREHOUSE,
aul-3t Wood Street, Bowly's Wharf, Baltimore, Md.

BY LEMMON & BROGDEN, BUCHANAN'S WHARF.

ON MONDAY, 10th day of AUGUST, 1857, at 11 o'clock, A. M., at the AUCTION STORES, Buchanan's Wharf—

250 TONS MEXICAN GUANO.

Ex. "Wheatland" and "Ownee."
(The ANALYSIS can be seen at our Counting Room
Sale Positive.)

LEMMON & BROGDEN.

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